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Global Film Production Incentives
– A White Paper by Olsberg•SPI

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Olsberg•SPI provides a range of expert consultancy and strategic advisory services to public and private sector clients, specialising in the worlds of film, television, video games and digital media. The firm has extensive experience in advising on the feasibility, design, and re-engineering of incentive systems, as well as wider production policy for a global client base.

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Note: Currency conversions correct at 3rd May 2019.

Cover dots reflect automatic incentives operating globally in May 2019. Multiple systems, such as the US, Canada and Australia are represented by a single dot.

1 — The Global Film Production Incentives Landscape

1.1 Overview

Film production incentives have become a key public policy phenomenon in the global screen sector in recent years. These programmes are designed to support and attract valuable film and television drama projects (collectively, "film") in or to a country or region by offering a return on eligible qualifying production expenditure.

Their usage has expanded in line with increasing global screen production and, by May 2019, 97 automatic production incentives were in operation in countries, states and provinces around the world.

This White Paper outlines the function and impact of such incentives globally and identifies trends in their usage and formulation. It has been undertaken for the Motion Picture Association of America (MPAA) by creative industries consultancy Olsberg•SPI ("SPI"), which works globally, including on the creation, implementation and evaluation of incentive systems. SPI also tracks the usage of incentives though its Global Incentives Index.[1]

For the purposes of this White Paper, the term film production incentives is used to refer to automatic systems at country, state or province level that can be accessed by inward investment productions rather than solely local projects.[2] The definition does not include selective or city-based funding, or models that offer exemption on selected taxes, such as sales taxes.

1.2 The Global Film Production Opportunity and the Development of Incentives

The use of film production incentives around the world has increased alongside a major – and ongoing – global film production opportunity.

Unprecedented consumer demand for screen content, and significant production investment from international studios, broadcasters, streaming services and others, has resulted in a deluge of production in recent years. The estimated number of feature films produced annually worldwide increased by 10% between 2014 and 2018 according to data collated by the European Audiovisual Observatory.[3] Meanwhile, the estimated number of scripted original series aimed at US audiences increased by 86% between 2011 and 2018 – and 173% since 2002, according to FX Networks data.[4]

The international production market is highly valuable. Research published by Ausfilm in 2018 estimated that the value of international feature production made outside California was US$4.6 billion in 2015, an increase from US$4.2 billion in 2012.[5]

1 Olsberg•SPI's Global Incentives Index is published twice annually in *World of Locations*. The latest Index was published in May 2019 and can be downloaded from https://www.o-spi.co.uk/wp-content/uploads/2019/05/Olsberg-SPI-Global-Incentives-Index-May-2019.pdf

2 SPI's Global Index does include some automatic systems for local production that are available to co-productions. An explanation of automatic incentives is included in Section 1.3

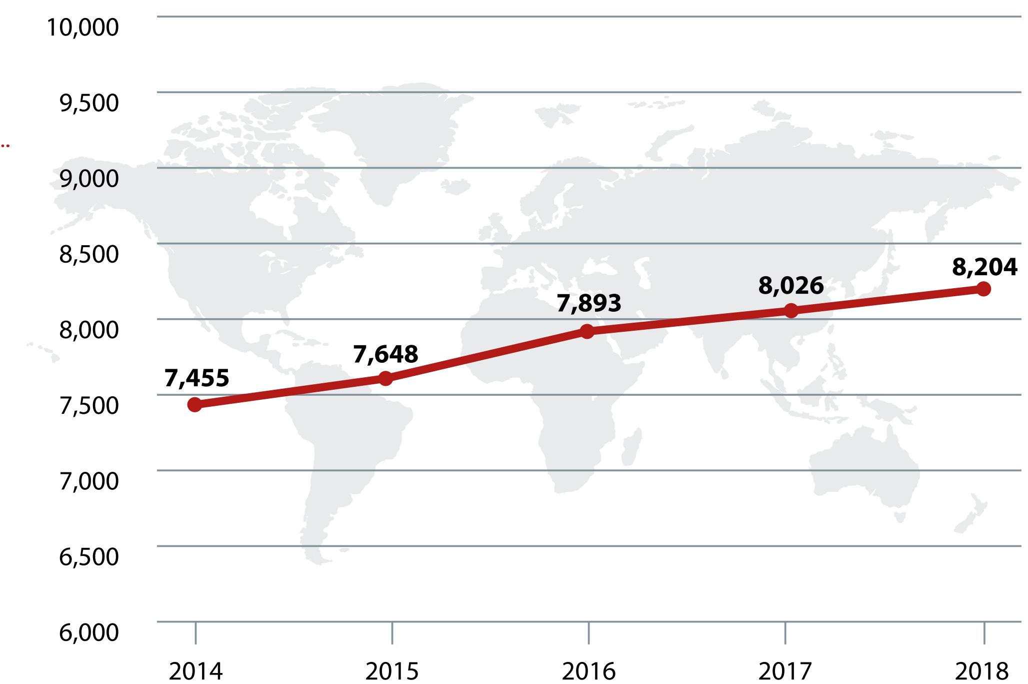
3 *Focus 2019 – World Film Market Trends*. European Audiovisual Observatory

4 *Peak TV Update: Scripted Originals Hit Yet Another High in 2018*. Hollywood Reporter, 13th December 2018

5 *The Value of Global Footloose Production: An Estimate With Case Studies*. Commissioned by Ausfilm and PWC's Entertainment and Media Practice Australia, 2018. It should be noted that international productions, the term used in this White Paper, are also sometimes referred to as 'footloose' productions. This report notes that the estimates may be conservative

***Figure 1:* Estimated Worldwide Feature Film Production, 2014-2018**

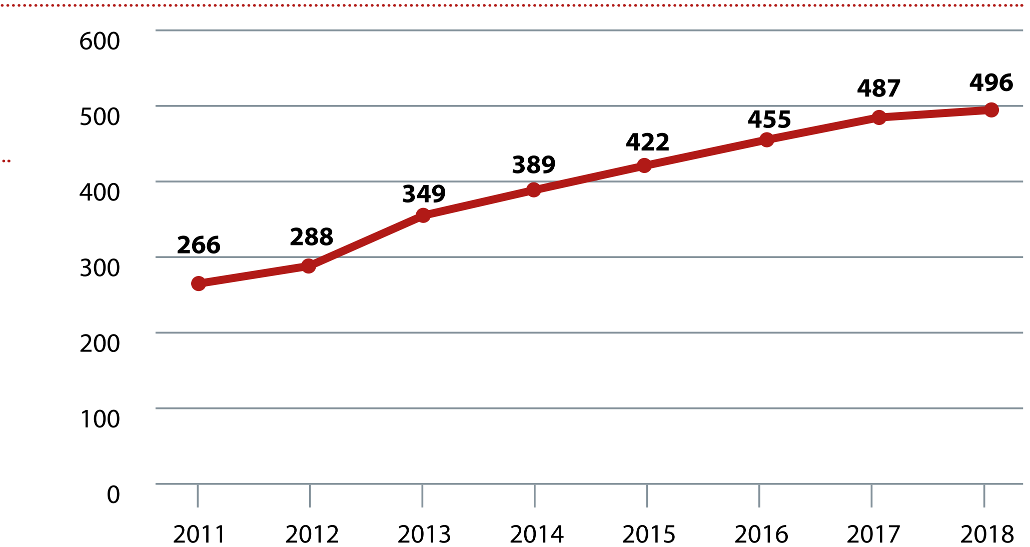
Number of feature films produced



Source: European Audiovisual Observatory.

***Figure 2:* Estimated Number of Scripted Original Series, 2011-2018**

Number of series



Source: Estimated by FX Networks Research as of 31st January, 2019.
Notes: Broadcast, cable, and online services. Excludes library, daytime dramas, one-episode specials, non-English language/English-dubbed, children's programmes, and short-form content (< 15 mins).

These robust production levels are creating a global opportunity for the servicing of international production, and governments have become increasingly aware of the potential impact of attracting such valuable international projects, as well as the importance of encouraging a strong domestic industry. Indeed, a healthy film production sector contributes a suite of economic, cultural, and other benefits and delivers strategic value across considerations such as economic diversification, and the creation of highly-skilled and future-facing jobs.

1.3 How Incentives Work

The majority of film production incentives function as automatic models. This means that producers undertaking qualifying expenditure – as outlined by an incentive's regulations and guidelines – can expect to receive a pre-determined contribution to that investment, subject to verification.

Most national incentives are not based on qualitative selection of projects, although some jurisdictions do offer selective "top-up" funds for specific projects, while other public funds will disburse investment on a selective basis. This White Paper focuses only on automatic systems.

Such incentives are predictable, which is a key attraction for producers looking to balance the financial and logistical risks of production. They are also relatively clear and straightforward and, unlike selective funding systems, there is no discretionary element in project selection or payout once specified expenditure has been undertaken. Since international projects require certainty in planning for their chosen locations, any element that creates doubt regarding whether an incentive is achievable will hinder its effectiveness.

Film production incentives are generally focused on production – i.e. the principal photography of film, television drama and documentary projects – although they are often relevant for other aspects of the film-making process, such as visual effects (VFX) and post-production, as well as animated projects.

Most systems encourage international productions alongside the production of local projects and official co-productions. For national producers, an incentive is a key support measure for progressing projects in a challenging international finance environment, and a healthy national production sector also develops a skills, talent and infrastructure base that is utilised by international productions.

1.3.1 Key Types of Incentive and Formulation

There are two main types of film production incentive:

1. Cash rebate

Cash rebate: this system repays an amount of qualifying production expenditure back to a producer according to a pre-determined formula. The rebate tends to be funded by the state budget, and a benefit for governments is that the rebate is paid after the production spend is undertaken, and relevant taxes paid.

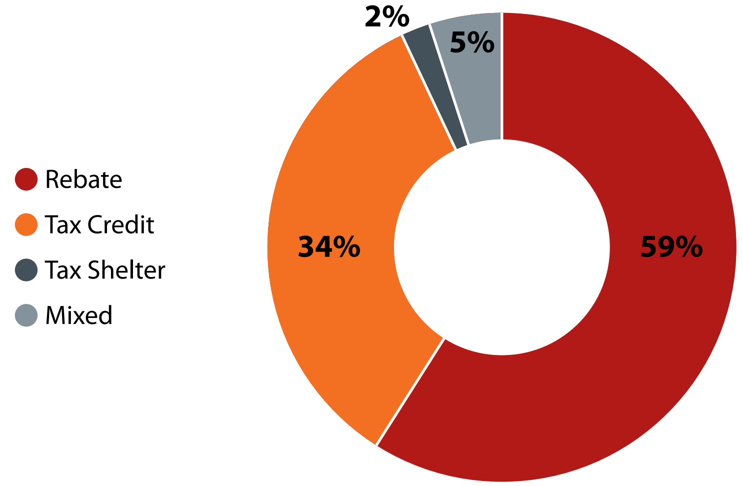
2. Tax credit

Tax credit: this system sets the incentive given against tax owed by the production company. Typically, the incentive would reduce these liabilities when the company's tax return is filed, and provides a refund if the credit exceeds liabilities. In some jurisdictions, generally where tax credits are not refundable, they can be transferable – i.e. producers can sell the credits at a discount for third parties to use to reduce their individual or corporate tax liabilities. This ensures that the incentive can be fully effective, in that it can be monetised to provide cashflow for the production.

A small minority of incentives utilise a tax shelter system. These are based on attracting investment from companies and individuals who invest in film projects to reduce their tax liabilities. However, as tax shelters only represent a small minority of all incentives, and have fallen out of favour as a system, they are not considered a key incentive type for the purposes of this White Paper.

As outlined in the following figure, rebates are now the most frequently-used system around the world, accounting for well over half of the systems in operation.

Figure 3:
Global Film Production Incentives by Type

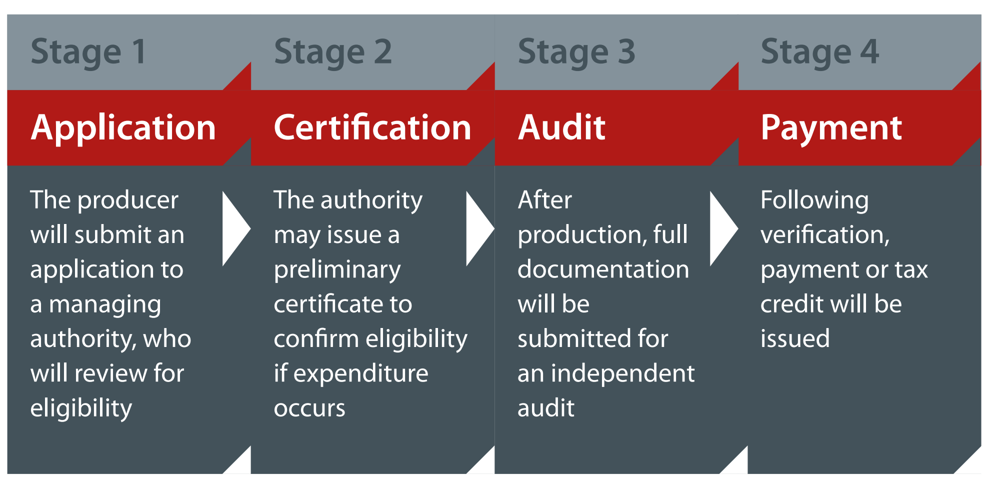


Source: Olsberg•SPI's Global Incentives Index. Correct at May 2019.
'Mixed' refers to systems or jurisdictions that combine more than one incentive type.

Production incentives are sometimes referred to as 'tax' incentives. In fact, only a minority of systems maintain a link to a tax system, so they are more correctly referred to as production or fiscal incentives.

Incentives are formulated in such a way that checks are included in the system to ensure it is being used correctly by projects, and generally include an independent audit stage, as outlined in the figure below.

Figure 4:
Typical Film Production Incentive Application and Payment Process for Rebates and Tax Credits

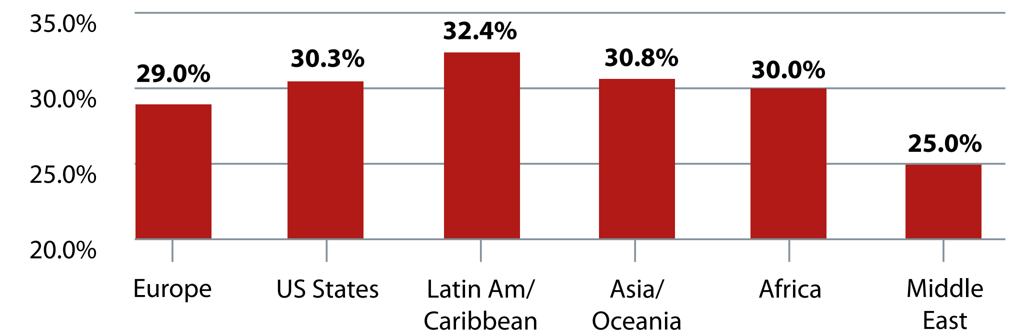


Beyond this general overview, individual systems can be formulated in many different ways. For example, there may be minimum spend requirements so that only a certain scale of project can access the incentive and ensure that administrative time is not spent on processing smaller projects that may deliver less significant economic benefit. There may also be requirements for projects to have a domestic tax base – i.e. to operate through a special purpose vehicle (SPV).

1.4 Incentive Value

Globally, the value of incentives varies from around 15% to 45% of qualifying production expenditure. Analysis of the systems in SPI's Global Incentives Index in May 2019, shows a mean average of around 30% for automatic production incentives currently operating around the world, excluding Canada. These are outlined in the following figure.

Figure 5:
Mean Global Film Production Incentive Values, May 2019



Source: Olsberg•SPI's Global Incentives Index. Note: Average highest possible rate for each incentive. Canada is not included because the headline rate of the federal and provincial incentives by themselves do not represent the final value that can be achieved when combined. The values included for Australia as part of Asia / Oceania are based on the Producer Offset, the Post, Digital & Visual Effects (PDV) Offset and the Location Offset.

However, the headline value of an incentive is only one of several factors that contribute to a system's competitiveness and ability to attract production. Other critical elements include the presence of a limit, or cap, on the amount of incentive that an individual project is able to obtain or a cap on the system's overall budget. The existence of such caps undermines the headline rate of an incentive since they limit the amount of production that is eligible for the incentive.

Analysis of SPI's Global Incentives Index shows that around 44% of systems in the US and 41% in Europe operate with a per-project cap. The amount of any cap is of course critical, and many established international production destinations operate systems with no cap (see Table 1).

The headline value of a national incentive may also present only part of the incentive value available in a jurisdiction. Some countries offer the ability to combine national and regional incentives, whether automatic or selective. An example of this is in Australia, where federal and state incentives – such as the South Australian Post Production, Digital and Visual Effects (PDV) Rebate – can be combined, or stacked. Canada's federal Production Services Tax Credit is also stackable with provincial incentives.

Headline incentive rates can also be lower in practice. Producers will often utilise the value of an incentive to help fund production so will cashflow the value of an incentive through a third party. With rebates or refundable tax credits this will involve the producer undertaking a loan against the incentive value. For transferable tax credits, the credit will be sold at a discount to a third party. While this ensures the incentive can be utilised to help fund production, in all such scenarios the net value of the incentive to the producer will be less than the headline rate.

1.5 Current Trends in Incentives

The global incentives landscape is fast moving. As global production grows, new systems are introduced as emerging production locations look to sharpen their competitive edge for attracting high-value film production. Meanwhile, existing systems are being updated to improve their function and attractiveness to producers. The huge growth in global production volume means that there is room for such competition and SPI anticipates this will continue to be the case for the coming years.

A number of current trends have emerged as the usage and strategic potential of incentives has become better understood and valued. One key trend has been the extension of incentives beyond feature film to other areas of screen content, including high-end television drama, animation, documentaries, post-production, visual effects, and video games. There are also a number of specific post-production, digital and VFX systems in operation.

Uplifts from a basic rebate percentage are also a key trend, with a number of jurisdictions offering additional value elements for projects that deliver certain specified impacts. These are used to ensure different outcomes such as workforce development, knowledge transfer and diversity – a key consideration as production markets develop their capabilities. For example, the Illinois Film Production Services Tax Credit offers an additional 15% credit on Illinois labour expenditures of employees who live in areas of high unemployment.

Uplifts may also be used to ensure valuable production occurs in regions outside of established hubs, helping ensure impact across a jurisdiction. For example, New Jersey's 30% Tax Credit Program for Film and Digital Media is offered at 35% for production taking place in certain municipalities, Croatia's rebate offers an additional 5% for production in regions with below-average development, and California's Film & Television Tax Credit Program 2.0 provides added incentives for projects filming outside of the Los Angeles region. Uplifts may also be offered for projects that utilise certain elements of infrastructure, such as studios and post-production facilities, feature the culture of a jurisdiction, or are likely to assist in attracting screen tourism and achieving international promotion. The US state of Georgia, for example, offers a 10% Georgia Entertainment Promotion uplift.

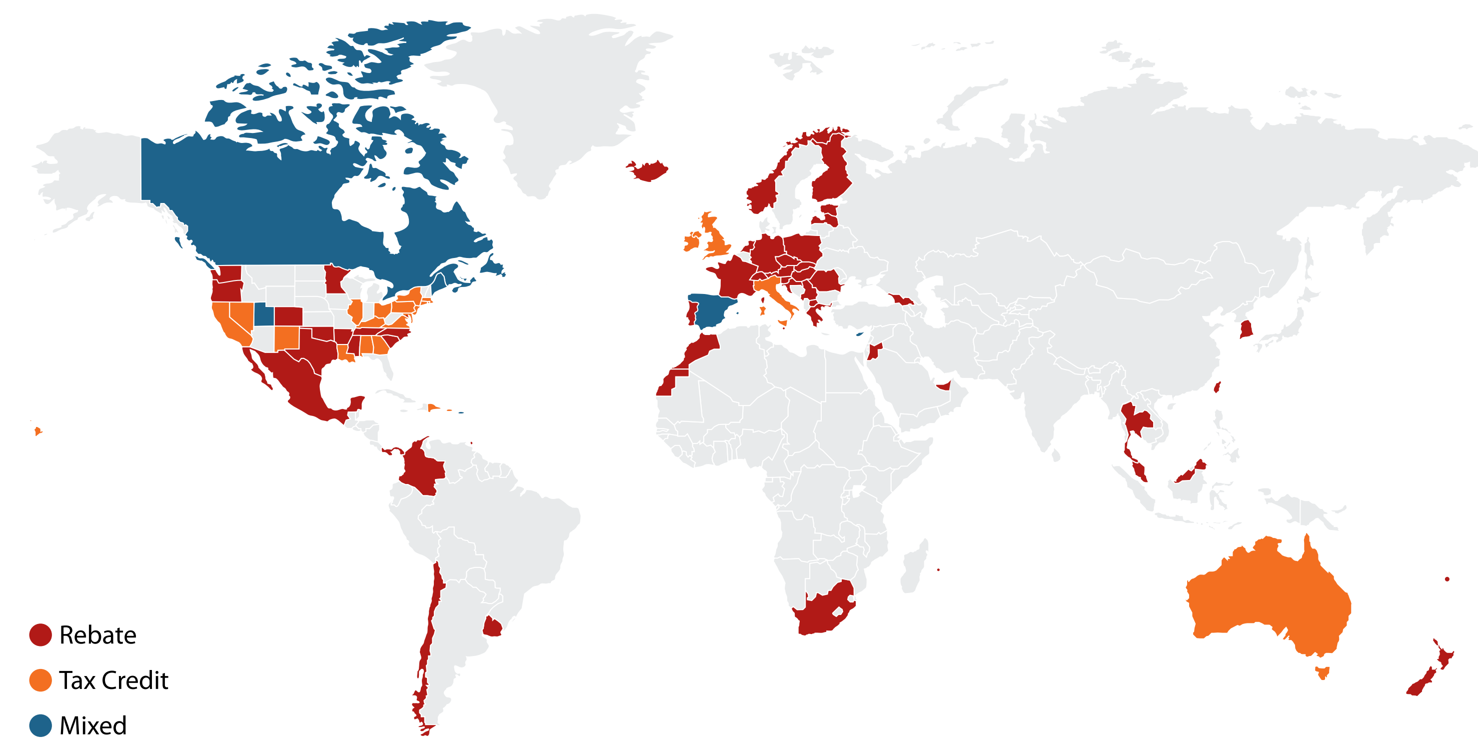
Such uplifts can be automatic or discretionary. For example, certain international projects qualifying for the New Zealand Screen Production Grant can be invited to apply for a 5% uplift if they offer significant economic benefits to New Zealand.

2 — Jurisdictions Offering Film Production Incentives

2.1 The Global Usage of Incentives

By May 2019, there were 97 incentive systems in operation at national, state and province level according to SPI's Global Incentives Index. Their usage is global, spanning both established and emerging production markets.

Figure 6:
Overview of Current Global Film Production Incentive Usage, May 2019

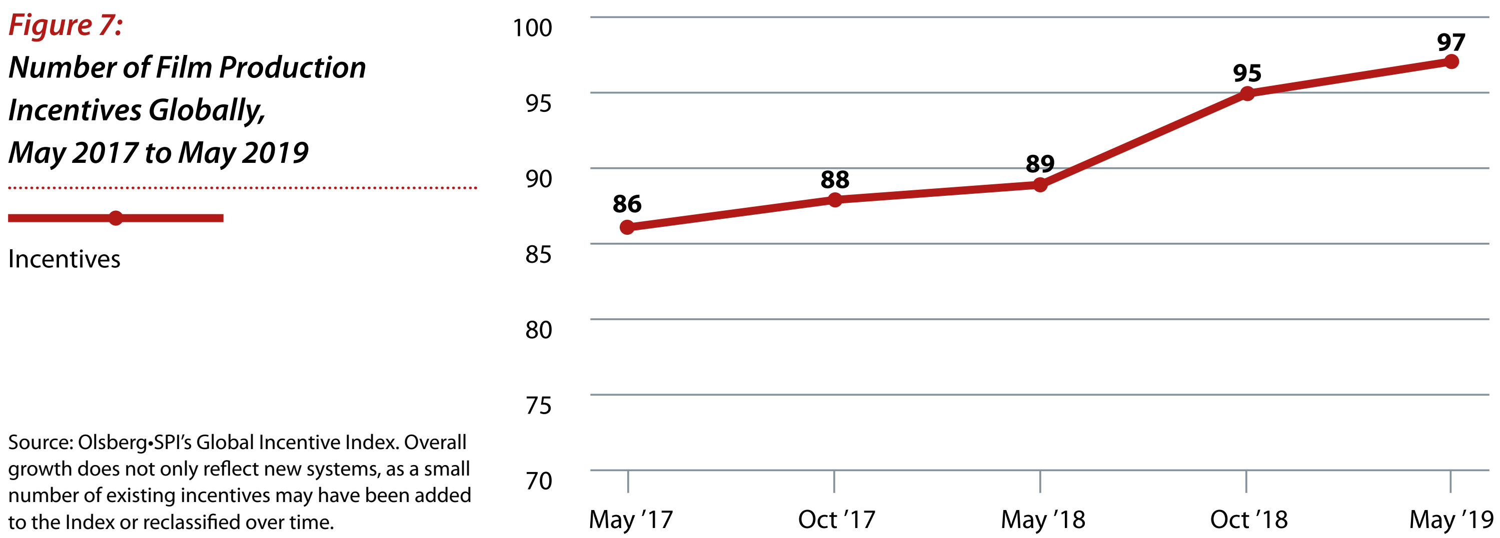


Source: Olsberg•SPI's Global Incentives Index. Does not include tax shelters (Belgium and Lithuania). 'Mixed' refers to systems or jurisdictions that combine more than one incentive type.

2.2 Increasing Usage

In total, the number of incentives increased by around 10 between May 2017 and May 2019. Since the beginning of 2019 new national incentives have been introduced in Poland and Uruguay.

Figure 7:
Number of Film Production Incentives Globally, May 2017 to May 2019



Source: Olsberg•SPI's Global Incentive Index. Overall growth does not only reflect new systems, as a small number of existing incentives may have been added to the Index or reclassified over time.

2.3 Selected Jurisdictions

With almost 100 jurisdictions offering automatic incentives, the global landscape is made up of a range of production markets. This includes highly-established production centres, emerging and location-dependent jurisdictions, and less-established markets that are focused on development.

This White Paper details examples and evidence from a number of developed production centres. These typically attract a strong throughput of major international productions, and offer sufficient data to evidence impacts of the incentives in operation.

These jurisdictions are outlined in the following table. It should be noted that while the definition of film production incentives in this White Paper includes film and television, not all systems are relevant to both, and not all systems will include all types of production within these genres.

Table 1:
Example of Incentives in Established Production Centres

Jurisidiction	Name of System	Type	Value	Additional Value	Per project cap	Annual budget/cap	Application deadline	Eligible	Limits/restrictions/considerations
Australia	Producer Offset	Refundable tax credit	40% for features released theatrically; 20% for other productions	—	—	—	—	40%: theatrically released features including documentary, animation and Imax. 20%: single dramas and documentary including features released on DVD or online, TV drama, documentary series, short-form animation.	Can be combined with state and territory government incentives. Producers can access only one government incentive per project. Official co-productions are eligible. Subject to Significant Australian Content test. Minimum qualifying expenditure thresholds apply, including US$351,000 (A$500,000) for features and US$702,000 (A$1 million) for a drama series. Available to companies, which must be Australian resident or have permanent establishment in Australia and be able to lodge a tax return.
	Post, Digital & Visual Effects (PDV) Offset	Refundable tax credit	30%	—	—	—	—	Film, TV drama, other TV, documentary, other	Can be combined with state and territory government incentives. Producers can access only one government incentive per project. No cultural or content test. Productions do not need to be filmed in Australia. Calculated on qualifying PDV expenditure of at least US$351,000 (A$500,000). PDV work can be performed at one facility or across different facilities. South Australia and Queensland each provide a 10% uplift on eligible in-state PDV expenditure.
	Location Offset	Refundable tax credit	16.5%	13.5% additional value available through Location Incentive Program, with separate terms and conditions. The Location Offset is dependent only on meeting the minimum threshold for spend in Australia, whereas the Location Incentive is a merit-assessed grant.	—	—	—	Film, TV drama, other TV, documentary, other	Can be combined with state, territory and local government incentives; producers can access only one government incentive per project. No cultural or content test. Features must have minimum qualifying spend of US$10.5 million (A$15 million), and television series must spend US$702,000 (A$1 million) per episode. The Location Incentive Program offers US$98 million (A$140 million) funding over four years, or US$25 million (A$35 million) annually to 2023.

Table 1:
Example of Incentives in Established Production Centres (Cont.)

Jurisidiction	Name of System	Type	Value	Additional Value	Per project cap	Annual budget/cap	Application deadline	Eligible	Limits/restrictions/considerations
British Columbia, Canada	Production Services Tax Credit (PSTC)	Refundable tax credit	Basic PSTC: 28%	Regional Tax Credit: 6%. Distant Location Regional Tax Credit: 6%. Digital animation, visual effects and post-production: 16%.	—	—	—	Film, TV drama, other TV, documentary, other	Applicant production company must be BC-based and its primary activity must be the production of film or videos, or the provision of production services. Minimum total budgets of US$75,000 (C$100,000) per episode for TV projects 30 minutes or less; US$149,000 (C$200,000) for TV projects above 30 minutes; and US$746,000 (C$1 million) for all other projects.
California, US	Film & Television Tax Credit Program 2.0	Non-transferable tax credit for relocating TV series. Non-transferable tax credit for feature films, new TV series, pilots, MOWs, mini-series. Transferable tax credit for independent films.	25% non-transferable tax credit for relocating TV series. 20% non-transferable tax credit for feature films, TV series, pilots, MOWs, mini-series. 25% transferable tax credit for independent films.	Projects eligible for 20% credit may get additional 5% credit uplift for 'out of zone' filming as well as visual effects and music	Feature films: first US$100 million of qualifiable expenditures (plus uplift). Independent films: first US$10 million of qualifiable expenditures.	US$330 million	Six application periods per year. For dates, see: film.ca.gov/tax-credit/application-dates/	Film, TV drama, other TV	Relocating TV show: US$1 million minimum episode budget, can be any length, reduces to 20% after one season. Independent feature films: US$1 million minimum budget. New TV shows: US$1 million minimum episode budget, at least 40 minutes per episode.
Georgia, US	Entertainment Industry Tax Credit	Transferable tax credit	20% basic incentive	10% for including Georgia promotional logo in final production	—	—	No earlier than 90 days before the start of principal photography	Film, TV drama, other TV, other	Production expenditures qualify only if paid to a Georgia-resident supplier. Production companies must spend US$500,000 per tax year — on one or multiple projects — to be eligible. New applications are required for each tax year of production.
Germany	German Federal Film Fund (DFFF)	Rebate	DFFF 1: 20% DFFF 2: 25%	DFFF 1 is worth 25% for projects with German production costs of more than US$9 million (€8 million)	DFFF 1: US$4.5 million (€4 million) DFFF 2: US$28 million (€25 million)	Combined, US$140 million (€125 million) is available annually from 2018	DFFF 1 and 2: no later than six weeks before the start of shooting	DFFF 1: Film, documentary DFFF 2: Film	For DFFF 1, minimum production costs of US$1.1 million (€1 million) for features, US$224,000 (€200,000) for documentaries and US$2.2 million (€2 million) for animated films. German production costs must be 25% of total, or 20% if total costs exceed US$22.4 million (€20 million). Film must be released theatrically in Germany. Cultural test applies. At least 75% of the total budget must be confirmed before the grant can be issued, but the application can be made before this is secured.

Table 1:
Example of Incentives in Established Production Centres (Cont.)

Jurisidiction	Name of System	Type	Value	Additional Value	Per project cap	Annual budget/cap	Application deadline	Eligible	Limits/restrictions/considerations
Germany *(Cont.)*									DFFF 2 can be utilised for entire productions as well as specific elements of a production, such as VFX. Feature films must have minimum German production costs of US$9 million (€8 million), with minimum total production costs of US$22.4 million (€20 million). German production costs for animated films must amount to at least US$2.2 million (€2 million). Film must be released theatrically in Germany. Cultural test applies. At least 75% of the total budget must be confirmed before the grant can be issued, but the application can be made before this is secured.
	German Motion Picture Fund (GMPF)	Rebate	Series: 20% on German production costs. Film: 20% on German production costs.	—	US$2.8 million (€2.5 million) per film. US$2.8 million (€2.5 million) per TV series (US$4.5 million [€4 million] for series with German spend of more than US$22.4 million [€20 million]).	US$16.8 million (€15 million)	Six weeks before the start of shooting	TV series, film (TV or VoD, not for cinema release)	For producers of TV series with total production costs of at least US$1.3 million (€1.2 million) per episode; for producers of films not for cinema release with total production costs of at least US$28 million (€25 million) per film; German financial contribution of at least 20% of total production costs.
Hawaii, US	Motion Picture, Digital Media and Film Production Income Tax Credit	Refundable tax credit	20% for Oahu productions. 25% for other islands.	—	US$15 million	US$35 million	Five days prior to the start of principal photography	Film, TV drama, other TV, other	Minimum in-state spend of US$200,000. All productions must secure third-party review from a qualified certified public accountant; make reasonable efforts to hire local talent and crew; sign a sworn statement that imported items could not be procured locally; and must make contributions to education and workforce development programmes totalling 0.1% of production's qualified spend.
Hungary	Hungarian Tax Rebate for Film Productions	Rebate	30%	—	—	US$114 million (HUF 33 billion)	—	Film, TV drama, other TV, documentary, other	Necessary to involve a Hungarian production partner. Expenses occurring abroad can also qualify, up to a quarter of total expenses paid to service providers in Hungary. Covers direct pre-production, production and post-production expenses. Cultural test applies.

Table 1:
Example of Incentives in Established Production Centres (Cont.)

Jurisidiction	Name of System	Type	Value	Additional Value	Per project cap	Annual budget/cap	Application deadline	Eligible	Limits/restrictions/considerations
Illinois, US	Illinois Film Production Services Tax Credit	Transferable tax credit	30%	Additional 15% tax credit on Illinois labour expenditures of employees who live in areas of high unemployment	—	—	**Film and TV** five days prior to the start of principal photography. **Commercials** 24 hours prior to shoot call time.	Film, TV drama, documentary, other	Minimum spend of US$100,000 for projects of more than 30 minutes, or US$50,000 for less than 30 minutes. Only spending to Illinois vendors and Illinois resident salaries are eligible. Applicant productions must show competitive need and show they have options for other locations.
Ireland	Section 481	Refundable tax credit	32%	5% regional uplift for projects substantially produced outside Dublin/Wicklow and Cork City & County, subject to specific training requirements (subject to European Commission approval)	80% of total production costs or US$78 million (€70 million) — whichever is lower	—	—	Film, TV drama, other TV, documentary	Applicant must be resident in Ireland or trading through an Irish branch or agency and must not be connected to a broadcaster. Payment can be received at 100% on delivery of the project and submission of a compliance report, or up front as two conditional 90% and 10% instalments. Minimum in-country spend of US$139,000 (€125,000) and minimum total budget of US$279,000 (€250,000). Cultural test applies.
Louisiana, US	Motion Picture Production Tax Credit Program	Refundable tax credit	25% base credit	5% for out-of-zone filming; 10% for a Louisiana screenplay on expenditures between US$50,000 and US$5 million; 15% for Louisiana payroll; 5% for visual effects. Maximum overall tax credit is 40% of base investment.	US$20 million for single productions, or US$25 million per season for episodic content	US$150 million in tax credits in any fiscal year, with US$7.5 million for qualified entertainment companies, US$7.5 million for Louisiana screenplay productions, US$15 million for independent film productions. The remaining US$120 million is available for allocation to any state-certified production.	Applications accepted and reviewed on a monthly basis	Film, TV drama, other TV, documentary, other	Minimum spend of US$300,000 if a project is not a 'Louisiana screenplay production'. All applicants must participate in a career-based learning and training programme.

Table 1:
Example of Incentives in Established Production Centres (Cont.)

Jurisidiction	Name of System	Type	Value	Additional Value	Per project cap	Annual budget/cap	Application deadline	Eligible	Limits/restrictions/considerations
Massachusetts, US	Film Incentive Programme	Refundable / transferable tax credit	25%	—	—	—	—	Film, TV drama, other TV, documentary, other	Minimum spend of US$50,000 in Massachusetts. If a production spends 50% of all production expenses in the state, or shoots 50% of total principal photography days in Massachusetts, the production becomes eligible for both 25% payroll and 25% production tax credits, as well as a sales tax exemption of approximately 6.2%.
New Mexico, US	Refundable Film Production Tax Credit	Refundable tax credit	25% for qualifying New Mexico expenditures including above-the-line (on-screen talent only) and below-the-line for film (New Mexico residents). 30% above-the-line (on-screen talent only) and below-the-line for TV (New Mexico residents). 15% below-the-line for non-residents up to 15% of total crew number.	Extra 5% for features utilising qualifying production facilities for a minimum number of days. Extra 5% for shooting in designated rural areas.	—	US$110 million per year with US$100 million backlog cap. New Mexico Film Partners exempt from cap.	Within one year of the last qualifying production expenditure	Film, TV drama, other TV, documentary, other	—
New York, US	Film/TV Production Tax Credit	Refundable tax credit	30%	Additional 10% credit available on qualified labour expenses in specified counties	—	US$420 million	First day of principal photography. Recommended submission of application no later than 10 days prior.	Film, TV drama, other TV	Separate post-production only (including fully-animated productions) and commercials credits are available. For films with a production budget of more than US$15 million, or which are more than 5% affiliated with publicly-traded entities, at least 10% of principal photography must take place at a qualified production facility (QPF) in New York State. All other films, one day at a QPF is required. 75% of location days must be in New York State in order for location days to be credit-eligible. Credits above US$1 million must be claimed in instalments. Credits are non-transferable and cannot be sold.

Table 1:
Example of Incentives in Established Production Centres (Cont.)

Jurisidiction	Name of System	Type	Value	Additional Value	Per project cap	Annual budget/cap	Application deadline	Eligible	Limits/restrictions/considerations
New Zealand	New Zealand Screen Production Grant	Rebate	20%	5% 'uplift' offered to productions with significant economic benefits to New Zealand. Productions are invited to apply.	—	—	To be eligible, a production must submit a registration form to the New Zealand Film Commission prior to the start of principal photography (or PDV activity) in New Zealand. Final applications must be submitted within six months after completion.	Film, TV drama, other TV, documentary, other	Films must incur US$9.9 million (NZ$15 million) of eligible spend. TV and other formats must incur US$2.6 million (NZ$4 million). The post, digital and VFX (PDV) system offers up to 20% of qualifying spend of US$16.6 million (NZ$25 million) and 18% above $16.6 million (NZ$25 million). PDV must incur US$332,000 (NZ$500,000) or more. New Zealand productions and official co-productions are eligible for a rebate of 40% of qualifying spend. To be eligible for the New Zealand Grant (40%) a production needs to meet the New Zealand Screen Production Grant Criteria for New Zealand Productions, as published on the New Zealand Film Commission website.
Ontario, Canada	Ontario Production Services Tax Credit	Refundable tax credit	21.5%	—	—	—	—	Film, TV drama, other TV, documentary	Applicant production company must be paying corporate tax in Ontario, be Ontario-based and its primary activity must be the production of film or videos. It must either own copyright or contract directly with the copyright owner. Minimum global budgets must exceed US$743,000 (C$1m) for a one-off; US$74,000 (C$100,000) per episode for TV projects that are 30 minutes or less; and $148,000 (C$200,000) for TV projects that are more than 30 minutes. While there are no per project or annual corporate limits on the amount of the OPSTC that may be claimed, a qualifying corporation's Ontario labour expenditure must amount to at least 25% of the qualifying production expenditures claimed. There is a stackable Ontario Computer Animation and Special Effects Tax Credit.

Table 1:
Example of Incentives in Established Production Centres (Cont.)

Jurisidiction	Name of System	Type	Value	Additional Value	Per project cap	Annual budget/cap	Application deadline	Eligible	Limits/restrictions/considerations
Ontario, Canada *(Cont.)*	Ontario Computer Animation & Special Effects Tax Credit	Refundable tax credit	18% of eligible Ontario labour	—	—	—	Applicant should apply at the end of their taxation year	Film, TV drama, other TV, documentary	OCASE is relevant for computer and special-effects activities undertaken using digital technologies (including animation and VFX work). To qualify, eligible labour activities must be for work attributable to an eligible film or television production that has been issued an Ontario Film and Television Tax Credit (OFTTC) or an Ontario Producer Services Tax Credit (OPSTC) certificate of eligibility. The applicant production/VFX/animation company must have a permanent establishment in Ontario, and be paying taxes in the province. OCASE is stackable and can be claimed for the same production that received an OFTTC and OPSTC tax credit. There are no per-production budgetary limits.
Pennsylvania, US	Film Production Tax Credit	Transferable tax credit	25%	A rate of 30% for eligible post-production expenses incurred at a qualified post-production facility	—	US$65 million	Four application review periods per year	Film, TV drama, other TV, other	Minimum of 60% of production budget must be spent in Pennsylvania. Cap of US$15 million on above-the-line payments to principal actors.
United Kingdom	Creative Sector Tax Reliefs	Refundable tax credit	25%	—	—	—	—	Film, TV drama, other TV, documentary	Applicant production company must be a UK corporate taxpayer. Films must be intended for theatrical release. Minimum in-country spend of 10% of costs applies. Cultural test applies.

Source: Olsberg•SPI's Global Incentives Index. Genre eligibility has been standardised, with 'other' including production types such as commercials and music videos.

3
Summary of Film Production Incentive Impacts

As incentive usage has increased, so has evidence of the impacts that are created by these systems. Indeed, independent evaluations are a critical part of the lifecycle of incentives, and the tracking and collation of data a core part of their administration.

An economic impact analysis is a primary tool for ascertaining the impact of a system from a policy perspective, and such assessments are crucial in enabling a government to calculate return on investment (ROI) and to identify other economic and qualitative impacts. Film production creates a host of benefits – therefore the impact of incentives is also considered across a variety of other factors, including job creation and skills development, expenditure on infrastructure, inward investment, national branding and soft power, screen tourism, and cultural value.

This section outlines the impacts identified in many of the example jurisdictions detailed in Table 1.

3.1 Production Expenditure

A key measure for any incentive is the amount of expenditure generated by the system – i.e. the direct production spend undertaken by projects that access the incentive.

Film productions, whether national or international, generate large amounts of direct expenditure – which may have been undertaken in other jurisdictions in the absence of an incentive. Examples of production spend are outlined in the following table.

***Table 2:* Examples of Production Expenditure Impact in Selected Jurisdictions**

Jurisidiction	Expenditure	Notes	Source
Australia	US$571 million (A$814 million) in total Australian expenditure in 2017-18	Includes features, TV drama, children's TV drama and online drama from Australia, and foreign features and TV drama. A decline from US$912 million (A$1.3 billion) in 2016/17. This was related to reduced foreign spend, with possible factors at the time including "industry concerns around the process of obtaining the Location Offset top-ups and potential studio limitations in Queensland due to the Commonwealth Games in 2018". In 2018 the Australian Government launched an additional US$98 million (A$140 million) Location Incentive Program, a merit assessed grant to complement the Location Offset.	*Drama Report. Production of feature films, TV and online drama in Australia in 2017/18.* Screen Australia
British Columbia, Canada	US$2.5 billion (C$3.4 billion) total BC budgets for tax credit certifications in 2017-18 fiscal year	An increase from US$ 1.9 billion (C$2.6 billion) in the 2016-17 fiscal year. Includes BC budgets for both Film Incentive BC (FIBC) and the Production Services Tax Credit (PSTC). Figures based on budgets that are submitted to Creative BC at the time of application for tax credit certification and may not correspond to the final production budget. The budget for FIBC applications may also include the total budget for international treaty co-productions and inter-provincial co-productions.	*2017/18 Tax Credit Certification Activity.* Creative BC

Table 2:
Examples of Production Expenditure Impact in Selected Jurisdictions (Cont.)

Jurisidiction	Expenditure	Notes	Source
California, US	US$2.6 billion estimated total expenditure (July 2017-June 2018)	US$979 million in qualified wages and US$801 million in qualified non-wages	*Film and Television Tax Credit Programs Progress Report.* California Film Commission, November 2018
Georgia, US	US$2.7 billion in direct spending in 2018 fiscal year	From 455 film and television productions shot in Georgia	*Deal: Georgia was home to a record 455 film and television projects in FY 18.* Press release, Office of the Governor, State of Georgia, 16th August, 2018
Germany	US$368.6 (€329.6 million) in German costs for projects accessing the DFFF in 2018	An increase from US$358.5 million (€320.5 million) in 2017	*DFFF in Zahlen.* DFFF
Hawaii, US	US$268.6 million in qualified production expenditures in 2017	An increase from US$199.0 million in 2016	*Hawaii's Creative Industries.* Update Report 2018. Department of Business, Economic Development and Tourism, March 2019
Hungary	US$381.3 million (HUF 110.1 billion) in expenditure in 2018	An increase from US$374.7 million (HUF 108.2 billion) in 2017	*NMHH: 110,1 milliárd forintból készültek filmek Magyarországon 2018-ban.* NMHH press release, 11th March 2019
Illinois, US	US$263.2 million total qualified expenditure in 2017-18 fiscal year	—	*Illinois Film Production Services Tax Credit Annual Report FY2018 1st July, 2017 – 30th June, 2018.* Illinois Department of Commerce & Economic Opportunity

Table 2:
Examples of Production Expenditure Impact in Selected Jurisdictions (Cont.)

Jurisidiction	Expenditure	Notes	Source
Ireland	Irish expenditure of projects availing of Section 481 was US$326.9 million (€292.3 million) in 2017	An increase from US$296.2 million (€264.8 million) in 2016	*Breakdown of Projects Availing of Section 481.* Screen Ireland
Louisiana, US	US$446.8 million in certified expenditure from film in 2018	An increase from US$342.1 million in certified expenditure from film in 2017	*Economic and Fiscal Impact of Louisiana Entertainment Tax Credits.* Louisiana Entertainment/Camoin Associates, 2019
Massachusetts, US	US$272.5 million in production spending eligible for tax credits in calendar year 2015	An increase from US$265.1 million in 2014	*Report on the Impact of Massachusetts Film Industry Tax Incentives through Calendar Year 2015.* Commonwealth of Massachusetts Department of Revenue, 23rd March 2018
New Mexico, US	US$234.2 million in direct spend into the New Mexico economy in 2018 fiscal year	From 38 projects over US$1 million	*New Mexico's 25% to 30% Refundable Film Production Tax Credit.* New Mexico Film Office, 16th April 2018
New York, US	Initial applications for Film Production Tax Credit submitted during the second quarter of 2018 included qualified costs of US$681.8 million	Does not include Post Production Tax Credit	*Film Tax Credit – Quarterly Report Calendar Year 2018: Second Quarter June 30th, 2018.* Empire State Development, 2018

Table 2:
Examples of Production Expenditure Impact in Selected Jurisdictions (Cont.)

Jurisidiction	Expenditure	Notes	Source
New Zealand	Value of international production budgets attracted to New Zealand by the New Zealand Screen Production Grant in 2017-18 was US$460 million (NZ$693 million)	An increase from US$271 million (NZ$409 million) in 2016-17	*Annual Report 2017-2018.* New Zealand Film Commission
Ontario, Canada	US$2.1 billion (C$2.9 billion) total volume of film and television production in 2017-18	A decrease from US$2.2 billion (C$3.0 billion) in 2016-17. Report focuses on activity during 1st April, 2017 to 31st March, 2018	*Profile 2018. Economic Report on the Screen-Based Media Production Industry in Canada.* Prepared for the Canadian Media Producers Association, Department of Canadian Heritage, Telefilm Canada and Association québécoise de la production médiatique
Pennsylvania, US	US$525.6 million in projected / actual spending in Pennsylvania from productions approved for Film Tax Credits (2017/18 fiscal year)	Excludes data for the two productions approved for US$1.6 million in tax credits on a conditional basis only in the upcoming fiscal year(s). Includes data on the productions approved for tax credits in FY 2017-18 and conditionally approved for additional tax credits from future year allocations under the assumption the program will continue and these projects will be completed since production has already begun, as well as productions that were approved for tax credits from prior year Film Production Tax Credit allocations	*Film Production Tax Credit Programme. FY 2017-18. Report to the General Assembly.* Pennsylvania Department of Community & Economic Development

Table 2:
Examples of Production Expenditure Impact in Selected Jurisdictions (Cont.)

Jurisidiction	Expenditure	Notes	Source
United Kingdom	US$4.2 billion (£3.2 billion) total UK spend from feature films, high-end television productions and animation programmes in full-year 2018	—	*Film, high-end television and animation programmes production in the UK: full-year 2018.* BFI Research and Statistics Unit, 31st January 2019

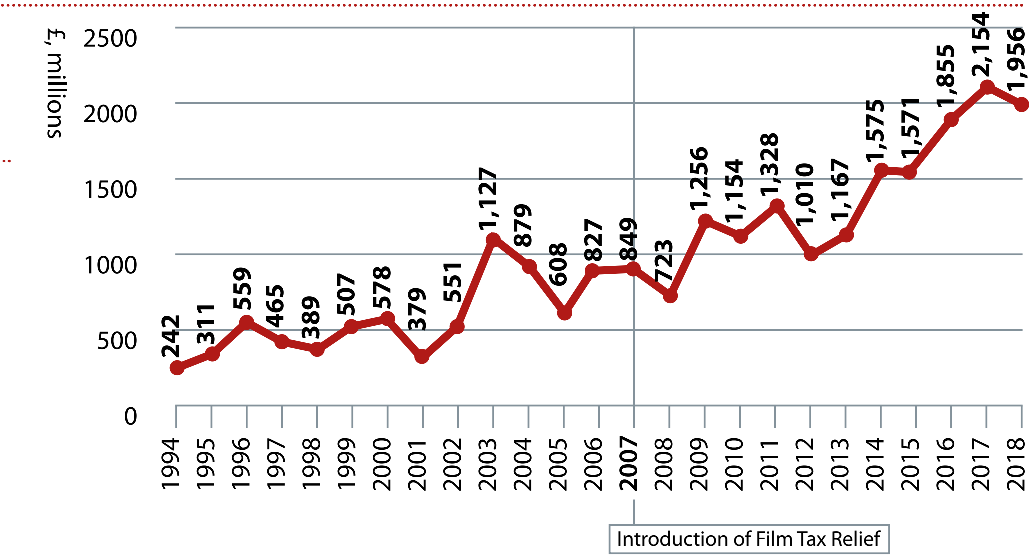
Note: while year-on-year change is noted for some jurisdictions is noted, this may not be fully representative of longer-term trends in market development. For example, the presence or absence of a small number of high-budget productions can have a significant effect on data from one year to the next.

Impact is also gauged by examining the overall spend undertaken in a production market after an incentive's introduction.

Data from the UK shows that the introduction of Film Tax Relief (FTR) in 2007 has had significant impact on overall feature film expenditure, which increased by 171% between 2008 and 2018. The aggregate UK spend of features starting principal photography in 2018 was US$2.6 billion (£2.0 billion). The UK also saw an additional US$1.5 billion (£1.2 billion) in UK production spend on high-end television programmes, which is not reflected in the figure below.[6]

Figure 8:
UK Spend of Feature Films Produced in the UK, 1994-2018

Total



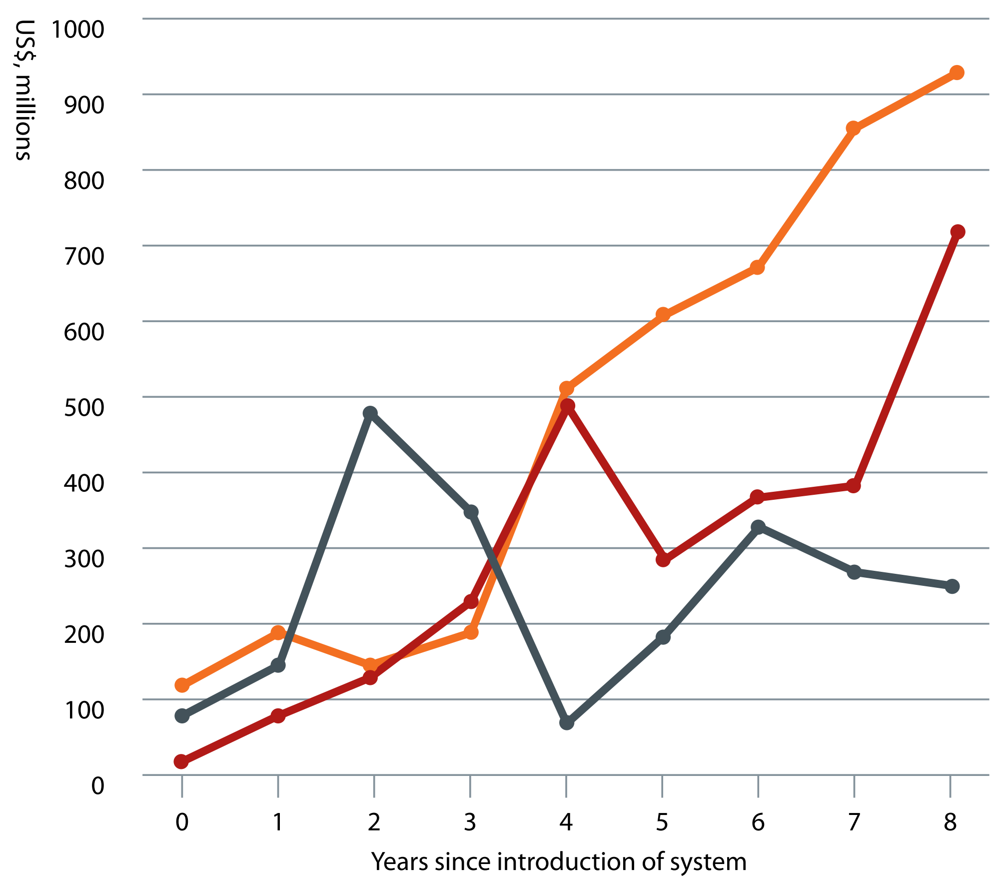
Source: BFI. Data can be revised as more information becomes available.

6 *Film, high-end television and animation programmes production in the UK: full-year 2018.* Ibid

Data from other territories also show that the introduction of an incentive precipitated an increase in expenditure. In Australia, total spend on domestic and international productions was US$478 million (A$681 million) in 2007-8, when the country's Offsets were introduced. This almost doubled by 2016-17, when expenditure reached US$912 million (A$1.3 billion). While total production spend decreased to US$571 million (A$814 million) in 2017-18, this reflects an interlude between the previous Federal top-up system and the introduction of a new Location Incentive, and furthermore masks an ongoing increase in domestic production, which reached a new high of US$504 million (A$718 million).[7,8]

Figure 9:
Selected Examples of Expenditure Growth Following Incentive Introduction

Georgia (0 = 2005)
Louisiana (0 = 2002)
Massachusetts (0 = 2006)



Source: Georgia Department of Economic Development, Georgia Film, Music & Digital Entertainment Office, Massachusetts Department of Revenue, MNP, Louisiana Office of Entertainment Industry Development, Variety.

7 *Drama Report.* Ibid
8 *All Drama Production Activity Summary.* Screen Australia

3.2 Additionality

While usage and expenditure data demonstrate the volume of production an incentive is servicing, and how much investment is flowing into a market, it is critical to understand the additionality of incentives. Additionality refers to the role of an incentive in generating investment that would not otherwise have occurred, and includes the attraction of major international productions and the retention of national projects that may have travelled elsewhere for principal photography.

The impact of incentives in generating production investment is highly significant. For example, analysis of the UK's FTR concluded that, between 2014 and 2016, 91% of UK film production expenditure would not have occurred without the incentive.[9]

3.3 Gross Value Added

Gross Value Added (GVA) is an economic measure of the value of goods and services produced in an area, industry or sector of the economy and is used to ascertain the contribution of the film sector. This can be calculated for the sector overall, and can also be broken down to the component parts of the screen value chain.

Direct GVA represents the value of an industry's output – i.e. goods or services – less the value of inputs used in the production of those outputs, excluding labour compensation. Spending by below-the-line cast and crew, as well through the wages of those employed by supplier corporations, is captured through indirect and induced GVA impacts which tend to be calculated alongside direct GVA.

The GVA impact of incentives has been shown to be pronounced. For example, in Australia for each A$1 of Offset disbursed in the 2016-7 fiscal year, A$3.98 of GVA was generated. The combined impact of the Australian film incentives was US$271 million (A$386 million) in 2016-17 in GVA directly related to productions supported by the incentives, almost double 2007-8.[10]

In the UK, FTR-supported production generated an estimated US$6.8 billion (£5.2 billion) in GVA in 2016, including spillover impacts, with FTR-related expenditure delivering a return of £7.69 in GVA for each £1 in relief granted.[11]

9 *Screen Business. How screen sector tax reliefs power economic growth across the UK.* Olsberg•SPI with Nordicity for the British Film Institute, October 2018
10 *Impact of Film and TV Incentives in Australia.* A report for the Australian Screen Association by Olsberg•SPI, 12th March 2018
11 *Screen Business.* Ibid

3.4 Employment

The large growth in expenditure that is generated by an incentive also has major impacts on employment, since producers will hire a large number of individuals and companies to create the project.

The screen production sector utilises large numbers of freelance labour at all grades, with many production-related jobs being project-based. As outlined in Table 3, employment in the film sector is measured using different approaches across jurisdictions. This includes a calculation of Full Time Equivalent (FTE) jobs, meaning that one FTE is equivalent to one year of full-time work. Other jurisdictions measure employment using metrics such as the total number of worker days, overall employment in the motion picture sector, or wages. Both direct and indirect employment can be measured.

Jurisdictions may also assess the impact of production on local labour, including on the hiring of locals to work on international productions. For example, a study in New Zealand assessed the usage of New Zealand resident labour on production supported by the New Zealand Screen Production Grant (NZSPG) for domestic and international productions. This concluded that New Zealand residents filled approximately 94% of roles on domestic NZSPG projects and 89% of roles on international NZSPG projects between 2014 and 2016.[12]

Table 3, below, outlines a range of examples of employment impact.

Table 3:
Examples of Employment Impact in Selected Jurisdictions

Jurisidiction	Employment	Notes	Source
Australia	Direct FTE impact of Offset-supported production spending was 24,989 in 2016-17	An increase from 15,617 FTEs in the first year of the Offsets in 2007	*Impact of Film and TV Incentives in Australia.* Ibid
British Columbia, Canada	US$1.3 billion (C$1.8 billion) in projected BC labour expenditures in 2017-18 fiscal year	—	*2017/18 Tax Credit Certification Activity.* Ibid

12 *Evaluating the New Zealand Screen Production Grant.* Sapere Research Group, March 2018

Table 3:
Examples of Employment Impact in Selected Jurisdictions (Cont.)

Jurisidiction	Employment	Notes	Source
California, US	Total state motion picture employment was 154,658 in 2017	An increase from 141,416 in 2014, the year before California's Film & Television Tax Credit Program 2.0 began. In addition, members of California's below-the-line unions working in film and television experienced a 16% increase in hours worked in 2017 compared to 2014.	*Film and Television Tax Credit Programs Progress Report.* Ibid
Georgia, US	3.3 million workdays created by film and television productions (2017 fiscal year, actual)	An increase from 1.2 million in 2016 fiscal year	*Performance Measures Report Fiscal Year 2019.* Governor's Office of Planning and Budget
Hawaii, US	3,295 jobs in 2017 (estimated)	—	*Hawaii's Creative Industries.* Ibid
Illinois, US	Incentive supported 15,970 hires in 2017-18 fiscal year	11,588 extras also employed in the same year	*Illinois Film Production Services Tax Credit Annual Report.* Ibid
Ireland	Total employment impact of the film, TV and animation sector was 11,960 FTEs in 2016	Direct employment of 7,070	*Economic Analysis of the Audiovisual Sector in the Republic of Ireland.* Olsberg•SPI with Nordicity, 18th December 2017
Louisiana, US	7,216 jobs supported by the film production tax credit programme in 2018 – 2,446 of which were direct jobs	An increase from 5,657 jobs in 2017	*Economic and Fiscal Impact of Louisiana Entertainment Tax Credits.* Ibid
Massachusetts, US	The state's incentive programme resulted in approximately 922 net new FTEs in calendar year 2015	—	*Report on the Impact of Massachusetts Film Industry Tax Incentives through Calendar Year 2015.* Ibid

Table 3:
Examples of Employment Impact in Selected Jurisdictions (Cont.)

Jurisidiction	Employment	Notes	Source
New Mexico, US	259,961 worker days in 2018 fiscal year	—	*New Mexico's 25% to 30% Refundable Film Production Tax Credit.* Ibid
New York, US	Initial applications for Film Production Tax Credit submitted during the second quarter 2018 included 52,756 employees	Head-count numbers, not FTEs	*Film Tax Credit – Quarterly Report Calendar Year 2018: Second Quarter June 30, 2018*
New Zealand	Estimate that the New Zealand Screen Production Grant resulted in 8,180 additional roles in New Zealand on productions between 1st April 2014 and 1st July 2017	Of these, 91% were filled by New Zealand residents	*Evaluating the New Zealand Screen Production Grant.* Ibid
Ontario, Canada	22,940 direct FTEs generated in film and television production in 2017-18	—	*Profile 2018. Economic Report on the Screen-Based Media Production Industry in Canada.* Ibid
Pennsylvania, US	Estimated 21,000 FTEs since the inception of the Film Production Tax Credit Program	—	*Report to the General Assembly Film Production Tax Credit Program FY 2017-18.* Ibid
United Kingdom	Value chain activity supported by the UK's Film, High-End Television and Animation Programme Tax Reliefs generated 126,580 FTEs in total in 2016 (including direct, indirect and induced impacts)	An increase of 62% from 2013	*Screen Business.* Ibid

3.5 Return on Investment

It is important that governments undertake robust assessments of the impact of any incentive to fully understand the effectiveness of their investment in the system. Return on investment can be assessed using different methods, and these should be informed by the specific strategic intentions of the system: for example, a narrow focus on taxation recouped may exclude considerations of priority areas such as growth in direct foreign investment, and job creation – as well as wider strategic areas such as skills development, national branding and screen tourism.

In economic terms, a key metric for examining return on investment is GVA, and results can be significant. For example, in 2016-17, the impact of Australia's Offsets was an additional A$3.98 in GVA for every A$1 of Offset disbursed.[13]

In Ireland, SPI analysis shows that, for 2016, each €1 of the country's Section 481 incentive generated €1.02 in tax revenue to the government and an average of €2.82 in economic net benefit for the Irish economy.[14] The film and television production industry – live action and digital – stimulated by Section 481 generated a total tax impact of US$104.4 million (€93.3 million) in 2016.

In the UK, the film sector returns £7.69 in GVA for every £1 of relief granted – an increase of 13% since 2009.[15]

3.6 Other Impacts

Incentives, and the film productions they support, are highly impactful across a range of other considerations. One increasing area of awareness is national branding and promotion. For example, research undertaken by the British Council shows the critical role that culture has in determining the attractiveness of a country, with 17% of survey respondents highlighting film as an attractive asset for the UK. For Chinese respondents, film was the second most important source of information about the UK.[16]

13 *Impact of Film and TV Incentives in Australia.* Ibid

14 *Economic Analysis of the Audiovisual Sector in the Republic of Ireland.* Ibid

15 *Screen Business.* Ibid

16 *As Others See Us,* as detailed in *Cultural and Audience Contributions of the UK's Film, High-End TV, Video Games and Animation Programming Sectors.* Olsberg•SPI, 2nd December 2015

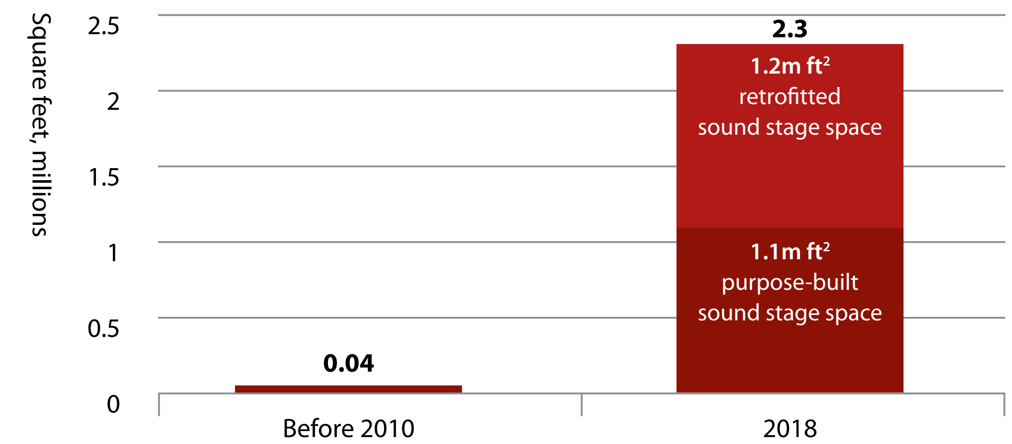
This impact has both cultural and economic outcomes. There are a number of robust examples of the significant impact that screen tourism can have worldwide, with a 2015 SPI study conservatively estimating that the value of screen tourism to film locations in England, outside of London, was worth in the region of US$131 million to US$184 million (£100 million to £140 million) in 2014.[17] This estimate was revised during the research process for *Screen Business*, which estimated total inbound film-related screen tourism spend at US$785.7 million (£597.7 million) in 2016, supporting 13,440 FTEs of total employment.[18]

According to Tourism NI's Visitor Attitude Survey in 2018, 350,000 – or one in six – out-of-state visitors were influenced to visit Northern Ireland because of *Game of Thrones*. A third of out-of-state visitors to Northern Ireland's Causeway Coast & Glens cite the show as influential in their decision to visit. Tourism NI also estimates that *Game of Thrones* visitors contributed in excess of £50 million to the local economy in 2018. ('Out-of-state' refers to visitors from outside Northern Ireland.)

SPI's screen tourism research has shown that there are a number of factors which can increase the tourism impact of film and television projects. These include whether a location is featured in a visual and dramatic way within the story, or whether the project overlaps with other key elements of a destination's offer, such as culture, and market visibility – for example, if the project is based on a major literary work, or is the latest entry in a popular franchise.[19]

Another way in which incentives create impact is through capital investment in production facilities, such as studios and post-production houses. Such investments underline the confidence that investors feel in a sector if it is underpinned by a stable incentive and also point to the infrastructure growth necessary in response to increased production. In a November 2018 progress report on the state's film and television tax credit programmes, the California Film Commission reports that the region is benefiting from "a surge in stage and production support space construction while sound stages are operating at near capacity".[20] In Georgia, the effect of the incentive-supported production is also evident in the growth of permanent sound stage space over a short period of time.

Figure 10:
Sound stage Space in the State of Georgia



Source: *Deal: Georgia was home to a record 455 film and television projects in FY 2018.* Ibid
Note: this release notes that Georgia now has more than 1.1 million ft² of purpose-built sound stage space and over 1.2 million ft² of retrofitted sound stage space, as outlined right, up from 40,000ft² of purpose-built sound stages available before 2010.

Other locations are seeing increased investment in production facilities, underpinned by strong production levels. This includes Toronto where, according to reports, Pinewood Toronto Studios is investing around US$38 million to increase capacity from 11 to 16 sound stages. Cinespace Film Studios is also reportedly converting two marine terminals to add 165,000 ft² of space.[21] CBS Television Studios has also announced plans to open a 260,000 ft² facility with six sound stages in Toronto.[22]

Another key area of impact is the cultural value created by film and television projects. SPI has undertaken studies on this impact, finding that cultural value can be generated by a broad range of content types. Screen content can help shape the national narrative and challenge the way people look at the world and is also crucial in preserving information on a country, with film archives a crucial resource for historians.[23]

17 *Quantifying Film and Television Tourism in England.* Olsberg•SPI, 4th March 2015
18 *Screen Business.* Ibid.
19 *Quantifying Film and Television Tourism in England.* Ibid
20 *Film and Television Tax Credit Programs Progress Report.* Ibid

21 *Toronto has been a film and TV hub for decades. Now Guillermo del Toro may give the Canadian city an edge.* Los Angeles Times, 12th July 2018
22 *CBS Unveils Plans for Toronto Production Studio.* The Hollywood Reporter, 26th September 2018
23 As example of this work is *Measuring the Cultural Value of Australia's Screen Sector.* Olsberg•SPI for *Screen Australia*, 11th November, 2016

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