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1. EXECUTIVE SUMMARY

1.1. Study Overview

In 2023, global screen sector consulting firm Olsberg•SPI (“SPI”) was commissioned by the Georgia Screen Entertainment Coalition (“GSEC”) to evaluate the impact of Georgia’s Entertainment Industry Tax Credit (the “Study”).

Georgia introduced the first version of the Entertainment Industry Tax Credit in 2005 to attract film and television projects to the state.¹ Since its introduction, there have been multiple revisions to streamline and enhance the incentive. In its current form, the tax credit offers a 20% base incentive rate, with a 10% Georgia Entertainment Promotion (“GEP”) uplift for productions that include the Georgia promotion logo. Most recently, a mandatory audit requirement was introduced for all projects certified by the Georgia Department of Economic Development (“GDEcD”) on or after 1st January 2023 that must be completed ahead of final certification.²

Since introducing the tax credit, Georgia has gained prominence as one of the world’s leading film and television production hubs – attaining this status in an era of major competition from other jurisdictions. Stimulated by Georgia’s incentive, an increase in production expenditure has, in turn, led to major private investment in studio construction in the state. Studio investment – which is not directly incentivized by the state – has helped drive job creation and further strengthened Georgia’s status as a global production hub.

1.2. Key Findings

1.2.1. Global Growth of Film and Television Production and Incentives

In recent years, policy makers worldwide have increasingly recognized the significance of film and television production to foster economic and strategic development. The screen production industry has a proven ability to yield an attractive return on public investment, with effects on employment, infrastructure, and skills development. It is an industry with a varied supply chain and the ability to attract inward investment. Film and television can also stimulate tourism and drive international recognition of a place.

Following the COVID-19 pandemic, film and television production experienced strong growth – reaching $238 billion in global content expenditure in 2022. This upsurge in production is now facing some headwinds from global economic uncertainty, a rise in production costs, labor strikes in 2023, and structural industry shifts. These factors have prompted producers to place a greater emphasis on the value and stability offered by production incentives in offsetting significant financial risks. Despite the persistent challenges, the screen production industry continues to display resilience, especially in competitive and well-established markets such as Georgia.

Incentives for film and television production are increasingly being utilized as an effective policy lever to stimulate activity. There are now 113 such incentives available globally, including in 37 states of the US.

While the volume of incentive programs is increasing, there are only a handful of top-tier global production hubs able to service the most ambitious and impactful film and television productions on an ongoing basis. Georgia is one of the few leading production centers in the

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¹ See the General Assembly findings in Section 1 of House Bill 539 LC 18.4150/A. Accessible at: https://www.legis.ga.gov/api/legislation/document/20052006/45542
² This was the final stage in a staggered schedule introducing mandatory audits, established through the passage of HB1037 in 2020. HB1037. Georgia General Assembly, 2020. Accessible at: https://www.legis.ga.gov/api/legislation/document/20192020/195277
US and the world, alongside markets such as California, New York, Canada (specifically British Columbia and Ontario), the UK, and Australia.

1.2.2. Georgia’s Development as a Global Film and Television Production Hub

Georgia offers a strong incentive, a variety of locations, highly developed studio infrastructure, a skilled and deep workforce, and a relatively affordable cost of living. Together, these elements have been fundamental to the growth of the film and television production industry in the state. Consultees for the Study identified the following motivators as key to Georgia’s success:

- Competitive and stable production incentive
- Robust network of local businesses and crew across the state
- Strong talent pipeline into the screen production industry
- Availability of diverse shooting locations and studio facilities
- Film-friendly local and state governments
- Pro-business economy.

These are explored in more detail in Figure 1.

Figure 1 – Key Motivators for Success in Georgia’s Film and Television Production Industry

<table>
<thead>
<tr>
<th>Motivator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitive and stable incentive</td>
<td>With increased global competition for production, an incentive that is perceived to be stable and competitive is a significant strength in the market. The lack of annual budget (or 'cap') gives Georgia a competitive edge over rivals such as New York, and California. Furthermore, the accessibility of Georgia's incentive can be critical for smaller producers who do not have access to a long runway of funding.</td>
</tr>
<tr>
<td>Robust network of local business and crew across the state</td>
<td>A substantial portion of the film and television production industry's workforce is local to Georgia, with estimates suggesting at least 80% of below-the-line crew working on productions are Georgia residents. The proportion of out-of-state workers has decreased in recent years, reflecting the direct impact of the incentive in generating a local workforce. The increase of businesses of all sizes that support the film and television production industry provides a plethora of choices to producers and studios.</td>
</tr>
<tr>
<td>Strong talent pipeline into the industry</td>
<td>Home to the Georgia Film Academy (&quot;GFA&quot;), Georgia has established a significant talent pipeline that trains Georgia residents in the skills required to work in the high-growth film and television production industry. Local government grants and other forms of support-in-kind for education programs, such as those run by Fresh Films, ensures that a pathway into the industry is open to all of Georgia’s residents.</td>
</tr>
<tr>
<td>Availability of diverse shooting locations and studio facilities</td>
<td>There is a healthy supply of production studio facilities and availability of diverse shooting locations to meet the requirements of all types of film and television production. Georgia has rapidly expanded its soundstage offer, rivaling leading markets such as Los Angeles and the UK in terms of stage and ancillary space.</td>
</tr>
<tr>
<td>Film-friendly local and state governments</td>
<td>Consultees emphasized the incredible work undertaken by those in local governments or in state government departments and the vital cooperation occurring between the government and local businesses in Georgia.</td>
</tr>
<tr>
<td>Pro-business economy</td>
<td>Georgia is a pro-business economy that enables businesses of all types to thrive.</td>
</tr>
</tbody>
</table>
1.2.3. Georgia’s Significant Growth in Screen Production

Film and television production in Georgia has boomed since fiscal year (FY) 2012. The Georgia Entertainment Industry Tax Credit has played an instrumental role in driving this growth.

Production expenditure in Georgia has increased at an average annual rate of over 17% between FY 2012 and FY 2023. Production spending in the state doubled between FY 2012 and FY 2016 and then doubled again from FY 2016 to FY 2022.

While production in FY 2020 was affected by the pandemic, the screen production industry rebounded quickly and delivered a record production expenditure of $4.39 billion in FY 2022. A recent announcement suggests that production in FY 2023 declined slightly to $4.1 billion.\(^3\) While this reflects the impact of economic headwinds outlined above – particularly the impact of 2023 labor strikes – it underlines the continuing strength of Georgia’s incentive.

*Figure 2 – Production Expenditure in Georgia, FY 2012 – FY 2023*

Expenditure on television and episodic content has become more dominant in Georgia since FY 2018, reflecting a wider global shift to television series production. Nevertheless, Georgia hosted 31 significant feature films in FY 2022 with an average budget of nearly $50 million per production.

The explosion of production activity in Georgia outlined above has been accompanied by significant private sector investment in studio development. Between FY 2012 and FY 2022, $1.28 billion was spent on constructing new studio facilities, expanding existing facilities, and converting existing buildings.\(^4\) Investor confidence in Georgia is strong, and there is a $2.93 billion investment in studio construction planned for FY 2023 to FY 2027, none of which would happen without the tax credit for production (see section 1.2.7).\(^5\)

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3. FY 2023 expenditure data are not included in this Study’s economic impact analysis
4. When studio construction is referred to in this Study, it refers to a combination of: the construction of new purpose-built studios; construction activity associated with converting existing buildings to studios; and renovations or expansions to existing studio facilities
5. The construction analysis time periods are FY 2012 to FY 2022 and FY 2023 to FY 2027 to align with the production analysis, which is FY 2012 to FY 2022 due to data availability
**Economic impact of the Georgia Entertainment Industry Tax Credit**

**1.2.4. Expansion of Studio Infrastructure in Georgia**

The growth of Georgia’s film and television production industry has also leveraged major expansion in studio infrastructure in the state. Georgia has approximately 5.7 million square feet of dedicated stage space across 212 stages. Of this total, 2.6 million square feet is dedicated stage space across 141 purpose-built stages.

**Table 1 – Operational Georgia Studio Infrastructure by Facility Type, 2023**

<table>
<thead>
<tr>
<th>Type</th>
<th>Total Stages</th>
<th>Total Stage Space (sqft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose-built</td>
<td>141</td>
<td>2,634,376</td>
</tr>
<tr>
<td>Conversion</td>
<td>39</td>
<td>1,666,509</td>
</tr>
<tr>
<td>Warehouse</td>
<td>32</td>
<td>1,381,969</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>212</strong></td>
<td><strong>5,682,854</strong></td>
</tr>
</tbody>
</table>

Note: Analysis accurate as of July 2023. New stages may have become operational since the initial analysis. Source: GSEC, SPI (2023)

If six further studio developments in Georgia proceed as planned, the total stage space in Georgia would increase to just over seven million square feet. These studio developments – four new developments and two expansions – would add a further 1.4 million square feet across 77 new stages in DeKalb, Clayton, Fayette, and Douglas Counties.

**1.2.5. Overall Economic Impact of the Georgia Entertainment Industry Tax Credit**

Georgia’s tax credit has led to a significantly increased level of incentivized film and television production in the state, which has, in turn, leveraged significant non-incentivized activity – such as the studio construction outlined in Figure 3. **Together, Incentivized and non-incentivized activity generate significant economic impact for Georgia.**

This Study measures the impact of production expenditure attracted to Georgia because of the Georgia Entertainment Industry Tax Credit. The analysis utilizes IMPLAN, a widely used and respected economic modeling software. In addition, the impact of investment in studio construction which can be directly attributed to the tax credit is also analyzed. The total economic impact comprises the direct, indirect, and induced effects as outlined in Figure 4.

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6 This summary presents the combined economic impact of the production and studio construction activity generated by the Georgia Entertainment Industry Tax Credit. The production and studio construction impacts are presented separately in the main body of the Study.
The production and studio construction effects of the tax credit can be combined to provide an overall assessment of the economic impact in terms of gross value added ("GVA" – i.e., the additional value created by an industry), economic output (i.e., the value of industry production), labor income\(^7\), and jobs\(^8\), which are summarized below.

Film and television production provides highly skilled, well-paid, desirable jobs that are less susceptible to automation and provide important benefits such as health insurance and retirement contributions. The average wage for those working in the motion picture and video industry\(^9\) in the US is $86,000\(^10\) – significantly higher than the Georgia state average of $58,000 across all industries.\(^11\)

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\(^7\) Labor income includes benefits such as health insurance and retirement contributions

\(^8\) The employment data presented is a measure of annual average jobs, which follows the same definition as the Bureau of Economic Analysis Regional Economic Accounts and the Bureau of Labor Statistics. One job lasting 12 months is equivalent to two jobs lasting six months each. A job can be either full-time or part-time and includes the self-employed

\(^9\) This includes workers across the value chain, including those working in production, post-production, distribution and exhibition. The average wage for those working solely in production may be higher


Economic impact of the Georgia Entertainment Industry Tax Credit

Figure 5 – Combined Economic Impact of the Georgia Entertainment Industry Tax Credit in FY 2022

Figure 6 – Economic Output Supported by the Georgia Entertainment Industry Tax Credit – Combined Production and Studio Construction Activity, FY 2018 – FY 2022 ($ million, 2023 prices)

Source: SPI analysis (2023) Note: analysis based on combined construction investment and production activity

12 This graphic include the combined economic impact generated for Georgia by incentivized production activity and the non-incentivized studio construction activity leveraged by the Georgia Entertainment Industry Tax Credit.
Figure 7 – GVA Supported by the Georgia Entertainment Industry Tax Credit – Combined Production and Studio Construction Activity, FY 2018 – FY 2022 ($ million, 2023 prices)

Source: SPI analysis (2023) Note: analysis based on combined construction investment and production activity

Figure 8 – Labor Income Supported by the Georgia Entertainment Industry Tax Credit – Combined Production and Studio Construction Activity, FY 2018 – FY 2022 ($ million, 2023 prices)

Source: SPI analysis (2023) Note: analysis based on combined construction investment and production activity
**Figure 9 – Jobs Supported by the Georgia Entertainment Industry Tax Credit – Combined Production and Studio Construction Activity, FY 2018 – FY 2022**

Source: SPI analysis (2023) Note: analysis based on combined construction investment and production activity

1.2.6. **Economic Return on Investment of the Georgia Entertainment Industry Tax Credit**

Economic Return on Investment (“ROI”) measures how much economic value is created per $1 of investment in tax credits by the state, and it aligns with the economic development objectives of the tax credit. The ‘cost’ to the state is the estimated total value of the tax credits issued minus the additional state and local taxes received because of the uplift in production and studio construction activity.

**Figure 10 – Economic Return on Investment of the Georgia Entertainment Industry Tax Credit – Combined Production and Studio Construction Activity, FY 2012 – FY 2022**

Source: SPI analysis (2023) Note: analysis based on combined construction investment and production activity

Across the Study years (FY 2012 to FY 2022), the overall economic ROI of the tax credit is 6.3. This means that for every $1 invested through the program, the benefit to the state economy is $6.30 in terms of additional economic value from direct, indirect, and induced effects. The direct ROI is 3.7, so $3.70 of GVA is generated within the film and television production and construction industries due to the $1 investment, indirect ROI (supply chain value created) is $1, and a further $1.60 is due to induced effects.
The ‘cost’ of the incentive is foregone tax receipts by the state, and due to the transferability of the credit, it can be purchased and used to offset the tax liabilities of Georgia taxpayers outside of the screen production industry. The foregone tax receipts are incurred one or more years after the expenditure and related economic impact has occurred in Georgia. This gap reflects the time between production, audit, issuance of the tax credit, and its subsequent sale and utilization. This delay positively impacts the state’s financial position as the ‘cost’ is postponed. The current audit backlog and the increasing processing time contribute to the positive gap for the state.

1.2.7. Additionality of the Georgia Entertainment Industry Tax Credit

As part of the Study, SPI conducted two surveys with industry stakeholders to better understand the effects of the tax credit in attracting productions into Georgia and influencing studio construction investment decisions in the state. These surveys measure the additionality of the tax credit – i.e., whether the incentive stimulates production expenditure and studio construction investment that would not have otherwise occurred in Georgia. This is also called the ‘but for’ argument, with the additionality rate measuring the amount of impact that would not have occurred ‘but for’ the incentive.

Primary survey research of this kind is the only practical method to gather insights into the additionality of Georgia’s incentive. A quasi-experimental approach is impractical as it is impossible to identify ‘control’ jurisdictions or companies that are not influenced by incentive policy due to the globally interconnected nature of the screen production industry, the prevalence of incentives worldwide, and the industry’s high sensitivity to incentives.13

The surveys found that production expenditure and studio construction investment would not have occurred at their current scale without the Georgia Entertainment Industry Tax Credit. According to the surveyed producers, only 7.9% of production expenditure between FY 2018 and FY 2022 would have happened in the state without the incentive. The tax credit was identified as the most important factor in decision-making for producers when compared with factors such as cast, crew, infrastructure, and locations.

The survey of studio investors, operators, and owners found that for 94% of respondents, their investment would not have gone ahead in Georgia in the absence of the incentive. Weighting the responses based on the scale of the construction investment leads to a result of near-zero investment in the absence of the tax credit, meaning all studio investment can be attributed directly to the incentive. A similar pattern is found for planned investments. At least 73% of the surveyed respondents with plans to invest in Georgia stated that the Georgia Entertainment Industry Tax Credit was the only factor in their decision. The remaining 27% consider the tax credit of great importance.

1.2.8. Ripple Analysis of Georgia Productions

Film and television production in Georgia impacts various economic sectors outside the screen production industry. This is because the production of film and television is a manufacturing process that requires a wide variety of inputs, including workers – varying in creative, technical, logistical, and support roles – as well as equipment, facilities, infrastructure, and services. While a portion of a project’s expenditure is directed towards screen production-specific vendors, significant spending is also directed into other areas of the economy, such as real estate and hospitality services, that do not solely service the screen production industry.

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13 As outlined in Appendix One – Methodology (section 10.1.7), activity in any control jurisdictions with no incentive offer would be very significantly impacted by incentives offered by other jurisdictions. See section 4.4 for an overview of how SPI has sought to limit response bias in the survey approach used for this Study.
To model this impact, SPI worked with two productions – a high-budget television series and a high-budget feature film – that had filmed in Georgia and accessed the state’s incentive.

In the case of the high-budget television series, 39.1% of total below-the-line spend was retained in the screen sector – i.e., to individuals and businesses who only work in screen production. This means that nearly 61% of the production’s spend flowed to a wide range of other sectors in Georgia, including location fees and real estate, construction, and general local labor.¹⁴

In the case of the high-budget feature film, demonstrated below in Figure 11, 33.2% of total below-the-line spend was retained in the screen production sector – i.e., to individuals and businesses who only work in screen production. This means that nearly 67% of the production’s spend flowed to a wide range of other sectors in Georgia.

*Figure 11 – Ripple Analysis of a High-budget Feature Film in Georgia*

¹⁴ For further details about these sectors and what this entails, see section 7.2
increased by more than 250% since 2013. The continuity of work provided by the tax credit has enabled more Georgia residents to work in this high-growth industry.

Film and television content is also a proven motivator for tourists to visit an area or location and can also have significant effects on marketing, brand building, and other strategic impacts for a location.

Since Georgia is a major global production hub, hosting highly popular projects such as The Walking Dead (2010-2022), Stranger Things (2016-present), and The Vampire Diaries (2009-2017), domestic and international tourists are drawn to Georgia to visit production locations. This generates considerable additional visitor expenditure, benefitting local businesses and contributing to place branding. Covington and Senoa are two examples of this phenomenon.

SPI research indicates that, in 2022, Georgia welcomed approximately 852,000 additional visitors who were drawn to the state solely because of film and television series filmed in Georgia. These visitors spent a total of $172 million in the state.

1.2.10. Factors Affecting the Future Growth of Georgia’s Film and Television Production Industry

Consultees agreed that remaining competitive is the greatest challenge and threat to the Georgia film and television production industry. Georgia’s competitive position is underpinned by a strong incentive program that the screen production industry perceives to be stable. The reliability and stability of an incentive are critical for investors, given the significant financial risks involved in film and television production.

Georgia faces increased competition from mature and emerging markets that are introducing new incentives or augmenting existing incentive offers. Ontario and British Columbia in Canada are already offering producers an incentive worth at least 37% by enabling the federal and province incentives to be stacked. New York recently increased its annual budget and incentive rate from 25% to 30%. Several jurisdictions have measures to encourage productions to use local crew or shoot outside of metropolitan centers. Other states, such as New Jersey and New Mexico, have introduced incentives that offer exclusive benefits to studio developers. These incentives encourage infrastructure development and long-term investment commitments, which may close the gap between these programs and Georgia’s.

In addition to maintaining its position as a major global hub, Georgia also has several areas for potential development, including:

1. Increasing local content creation
2. Exploring opportunities for investment outside Metro Atlanta.

There is an opportunity for more content to be created from inception within the state. Georgia has established itself as a pivotal film and television production industry able to service productions of all sizes – including blockbusters like Black Panther (2018), Avengers: Endgame (2019), and Stranger Things (2016-present). However, consultees believe there is room for more local content to be created in the state. Consultees referred to the success of Tyler Perry, who has been producing content in Georgia since the 1990s. By 2019, feature films directed by Tyler Perry had grossed more than $1 billion worldwide and created numerous employment opportunities for Georgia businesses and individuals.15 Faith-based filmmaking was also identified as a growth area of content creation, with production company Kendrick Brothers being one of Georgia’s foremost producers of faith-based content.

As Georgia’s screen production industry expands, there is also an opportunity to encourage investment outside of Metro Atlanta. The majority of Georgia’s existing stage space is situated in or around Metro Atlanta, reflecting the area’s growth as a primary production hub. Crew, vendors, and ancillary businesses develop around studios, with clustering effects. However, as the screen production industry in Georgia has grown, new hubs have developed. Savannah is a convincing example of this potential. While Savannah already had a rich history as a production location, the introduction of the Savannah Regional Film Commission and Savannah Entertainment Production Incentive in 2015 encouraged further development and growth in the region. By 2022, there was nearly $207 million in direct spending in Savannah by 101 productions.

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16 Some incentives specifically aim to stimulate regional production. For example, New Mexico’s tax credit offers an additional 5% for production expenditures in the state at least 96km outside of the exterior boundaries of Bernalillo and Santa Fe counties.

17 For more information on Savannah as a production location, see the case study in section 4.9.
1. GLOSSARY OF KEY TERMS

Above-the-Line and Below-the-Line refer to film and television production workforce and the different types and seniority of roles across talent, cast, and crew. Above-the-line refers to key talent, including directors, writers, and actors. Below-the-line refers to other crew, for example, in technical production roles.

‘Capped’ or ‘uncapped’ refers to whether an incentive system has a limited annual budget or not.

Compound annual growth rate ("CAGR") is a measure of the annual growth rate over a period of time.

GDEcD is the Georgia Department of Economic Development.

GDOR is the Georgia Department of Revenue.

Gross Value Added ("GVA") is a measure of the value that is created by economic activity. It is the difference between gross output and intermediate inputs. At a national level, it aligns to Gross Domestic Product (GDP).

Heads of Department refers to key lead roles on a film or television production, such as cinematographer.

Direct impacts refers to the economic uplift in terms of the output, value created (GVA), and jobs in companies directly engaged in incentivized production and the construction of studios.

Indirect impacts refers to the economic uplift in terms of the output, value created (GVA), and jobs effects observed in companies that supply goods and services to incentivized production and to construction firms working on studio construction.

Induced impacts refers to the economic uplift in terms of the output, value created (GVA), and jobs uplift created because of the wage effects of those working on incentivized production, the construction of studios and in the supply chains.

Total impacts refers to the combined economic impact of direct, indirect and induced impacts in terms of the output, value created (GVA) and jobs effects.

Jobs or employment in this study is a measure of annual average jobs, which follows the same definition as the Bureau of Economic Analysis Regional Economic Accounts and The Bureau of Labor Statistics. One job lasting 12 months is equivalent to two jobs lasting six months each. A job can be either full-time or part-time and includes self-employed workers.

Nominal values refer to an unadjusted rate or a value at current price.

Output is a measure of the results of an economic process available for sale or use elsewhere and is a measure of activity.

Return on Investment ("ROI") is a ratio of the net cost of the incentive (total incentive net of direct tax receipts) and the GVA impact effects.

Studio construction refers to a combination of: the construction of new purpose-built studios; construction activity associated with converting existing buildings to studios; and renovations or expansions to existing studio facilities.
Part I: Introduction
2. INTRODUCTION

2.1. Scope of the Study

Georgia introduced the first version of the Entertainment Industry Tax Credit in 2005. Since then it has gone through multiple revisions to streamline and enhance what the incentive offers to production investors. In its current form, it has a 20% base incentive rate, with a 10% GEP uplift for productions that include the Georgia promotion logo in the completed production. Most recently, a mandatory audit requirement was introduced for all projects certified by GDEcD on or after 1st January 2023.

Since introducing the tax credit, Georgia has gained prominence as one of the world’s leading film and television production hubs – it has attained this status in an era of major competition from other jurisdictions. Stimulated by the state’s incentive, increased production spending has, in turn, leveraged major private investment in studio infrastructure in Georgia – driving jobs growth and employment.

Against this backdrop, GSEC retained global screen sector consulting firm SPI to evaluate the impact of Georgia’s Entertainment Industry Tax Credit.

2.2. SPI’s Approach

This Study is an expanded economic impact study (EIS+) which analyzes standard economic impact metrics alongside additional elements to explore the strategic impacts of incentivized film and television production on the state. This includes:

1) A full economic impact assessment of productions supported by the Georgia Entertainment Industry Tax Credit. This is presented using key standard metrics, including expenditure, output, GVA, and job creation stimulated by the incentive. Sources for quantitative data included: GDEcD, Georgia Department of Revenue ("GDOR"), production companies, and studio developers and operators.

2) A full economic impact assessment of studio construction impacts between FY 2012 and FY 2022 and future expansion in the five years to FY 2027. This is presented using key standard metrics, including expenditure, output, GVA, and job creation.

3) Additional qualitative and quantitative evidence and narrative on the strategic impact of film and television production in Georgia. This includes an analysis of two productions that were filmed in Georgia to demonstrate the impact of film and television production at an individual production level. This includes the geographical mapping of vendor spend, ripple analyses to model how expenditure from individual productions impacts other sectors of the state economy, and analysis of cast and crew employed on productions. Other strategic impacts, including workforce development and training and screen tourism, are also considered.

Data sources for the Study include:

- **Confidential consultations** with over 36 key stakeholders and decision-makers, including leaders from Georgia’s film and television production industry, international producers and studios, studio operators, producers and production location decision-makers, educational institutions, local and state film commissions, Georgia state agencies, members of the Georgia legislature, and others.

- **Online survey** with 44 recipients of the Georgia Entertainment Industry Tax Credit – representing approximately 82% of expenditure between FY 2018 and FY 2022 – to understand more about the effects of the tax credit in attracting production to Georgia, and other factors determining production location decisions.

- **Confidential studio construction data survey** with 23 studio owners or operators in Georgia to gather highly detailed and robust data on the value of studio investment in
the state, as well as estimated expenditure for new studio construction in the five years to FY 2027.
- **Extensive desk research** reviewing a wide range of studies, reports, and articles regarding Georgia’s film and television production industry, as well as Georgia’s broader economic, legislative, and policy landscape.

Many stakeholders contributed their time and expertise to this Study. SPI would particularly like to thank Peter Stathopoulos from Bennett Thrasher for his insights and GDEcD and IATSE Local 479 for providing data. SPI is very grateful for the insight and data provided by all consultees.

### 2.3. Context of Study

Recent years have seen unprecedented increases in film and television production expenditures on a global level, driven by established studios, broadcasters, and newer streaming service investors. Additionally, awareness has increased among governments and policy makers that the creative industries – and film and television production in particular – can be leveraged as a highly valuable and strategic economic driver.

This is underlined by the fact that an increasing number of governments are creating automatic incentive systems to stimulate film and television production, as well as other support mechanisms, to drive production investment. There are now 113 automatic incentive systems globally at state, province, and country levels.

Georgia’s early and extended commitment to attracting investment through its incentive has resulted in production expenditure rising to record levels, while this production activity is also leveraging a highly significant amount of infrastructure investment. Governor Kemp announced in September 2023 that $4.1 billion in production expenditure, across 390 productions, was spent in Georgia between 1st July 2022 and 30th June 2023.18

For any incentive system, and particularly one of Georgia’s scale, it is essential that robust consideration is given to the impacts of the incentive investment to ensure that value is being created.

As outlined in this Study, film and television production is a high-risk undertaking, and investors are notably sensitive to incentives. These systems are becoming even more critical in a post-pandemic era where both broader economic headwinds and industry-specific challenges are impacting the screen production industry.

### 2.4. Rest of Report

The remainder of the Study sets out:
- Context regarding the global expansion of screen production and related incentives
- Overview of the Georgia Entertainment Industry Tax Credit and key competitors
- Overview of film and television production in Georgia by expenditure and type of project
- Economic impact of the Georgia Entertainment Industry Tax Credit
- Economic impact of studio construction developments, including two case studies providing county-level insight
- Consideration of strategic impacts of the tax credit, including the ripple effect of production and the geographical spread of impact.

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Part II:
The Georgia Entertainment Industry Tax Credit
3. THE GEORGIA ENTERTAINMENT INDUSTRY TAX CREDIT

3.1. Overview of the Growth of the Global Screen Production Industry

In recent years, governments worldwide have increasingly recognized the significance of film and television production as a pivotal element in economic growth and for fostering broader strategic socio-economic development. Consequently, governments have actively sought to invest in enhancing the appeal of their jurisdictions as film and television production locations. This interest is motivated by four factors:

1. The escalating global consumer demand for and accessibility to visual content through Video-on-Demand (VoD) streaming platforms and broadcasters. This acts as an opportunity for more production activity to happen.
2. The acknowledgment by policymakers that film and television production uniquely contributes to economic growth by infusing substantial spending rapidly into a location and subsequently disseminating it across the economy through the employment of a significant workforce comprising of cast, crew, and vendors. Of particular relevance to jurisdictions like Georgia is the potential for incentivized film and television production to catalyze private investment in infrastructure and supply chain businesses without incentives.
3. As a specialized form of manufacturing, film and television production generates modern, highly skilled, productive employment opportunities that are less susceptible to automation.
4. The proven ability of film and television production to yield an attractive return on public investment, coupled with a range of other economic and strategic benefits. These encompass attracting inward investment, stimulating tourism, bolstering branding efforts, and enhancing soft power and cultural influence.

In recent years, the global film and television production industry has experienced an unprecedented surge, primarily fueled by the growing demand for diverse content from both consumers and investors. Following the setbacks caused by the pandemic, the industry made a remarkable recovery, witnessing a substantial increase in global content expenditure, reaching $238 billion in 2022.

Despite the formidable growth, the screen production industry has its challenges, including general economic factors and industry-specific issues such as production cost inflation. These factors may exert a moderating influence on the production industry’s rapid expansion, but it is expected to maintain its resilience.

The bulk of this growth has been attributed to the television series production industry, as illustrated in Figure 12. It is worth noting that the dip in series production in 2020 was largely a consequence of pandemic restrictions that hampered production rates. Global feature film production also bore the brunt of the pandemic’s impact but has shown significant recovery and growth in both 2021 and 2022 (Figure 13).
The remarkable upsurge in production over recent years has encountered recent economic headwinds. At the time of writing, the 2023 labor actions initiated by the Writers Guild of America (WGA) and the Screen Actors Guild – American Federation of Television and Radio Artists (SAG-AFTRA) had exerted a substantial impact on production levels.

Additionally, broader global economic uncertainty and structural shifts within the industry have negatively impacted the production industry. Production cost inflation has prompted

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**Figure 12 – Scripted Original Series Production in the US, Calendar Year 2013 – 2022**

![Chart showing scripted original series production from 2013 to 2022.](chart_image)

Source: FX Networks Research

**Figure 13 – Worldwide Feature Film Production, Calendar Year 2018 – 2022**

![Chart showing worldwide feature film production from 2018 to 2022.](chart_image)

Source: European Audiovisual Observatory

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### 3.1.1. Current Outlook

The remarkable upsurge in production over recent years has encountered recent economic headwinds. At the time of writing, the 2023 labor actions initiated by the Writers Guild of America (WGA) and the Screen Actors Guild – American Federation of Television and Radio Artists (SAG-AFTRA) had exerted a substantial impact on production levels.

Additionally, broader global economic uncertainty and structural shifts within the industry have negatively impacted the production industry. Production cost inflation has prompted

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Economic impact of the Georgia Entertainment Industry Tax Credit

producers to place an even greater emphasis on the value offered by production incentives and the underlying stability of these systems.

On a global scale, while PwC anticipates continued revenue growth in the broader entertainment and media sector – with forecasts reaching $2.78 trillion by 2027 – it also highlights a deceleration in this growth, attributing it primarily to subdued consumer spending as the main challenge.\textsuperscript{20}

\textit{Figure 14 – Global Entertainment and Media Revenues, 2018 – 2027 ($ trillion)}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure14.png}
\caption{Global Entertainment and Media Revenues, 2018 – 2027 ($ trillion)}
\end{figure}

Despite the persistent challenges, the film and television production industry continues to display resilience, especially in developed and competitive markets such as Georgia. Developed markets boast a compelling blend of incentives, production expertise, state-of-the-art facilities, and a well-established supply chain.

3.2. Growth of Competing Production Incentive Programs

As outlined, film and television production incentives are a commonly utilized policy tool for legislators aiming to stimulate production activity. As well as attracting high-value out-of-state or international productions to a jurisdiction, an effective production incentive can also attract non-incentivized investment in infrastructure and supply chain businesses, further bolstering employment and skills development.

Since 2017, there has been a 31% increase in the number of film and television incentives offered worldwide (Figure 15). There are now 113 incentives available globally,\textsuperscript{21} including 39 systems in 37 states of the US.\textsuperscript{22} In addition to the introduction of new incentives, existing incentive programs are continually undergoing efforts to adapt and expand their offer to meet the changing needs of both the film and television production industry and the cultural and economic needs of the jurisdictions.

\textsuperscript{20} \textit{Perspectives from the Global Entertainment & Media Outlook 2023–2027. PwC, 21\textsuperscript{st} June 2023. Accessible at: https://www.pwc.com/gx/en/industries/tmt/media/outlook/insights-and-perspectives.html}

\textsuperscript{21} Note: this includes non-selective incentives only. Selective incentives and grants are also operational across the world but not included in this analysis

\textsuperscript{22} Note: there are 39 systems in the US in 37 states

© Olsberg•SPI 2023  6\textsuperscript{th} November 2023
While the volume of incentive programs has increased, only a handful of established top-tier global production hubs are able to service the most ambitious and impactful film and television productions on an ongoing basis. Georgia is one of the few key production centers in the US and the world, alongside markets such as California, New York, Canada (specifically British Columbia and Ontario), the UK, and Australia. Achieving the status of a top-tier destination is very difficult to attain. It requires a valuable and stable incentive, world-class production infrastructure, crew, and vendors – and the support of local and state-level government, which helps foster an attractive environment for local and incoming producers and stimulates further development and growth. In a fast-moving industry, maintaining a top-tier position requires a strong continued offer in all of these areas.

3.3. Overview of the Georgia Entertainment Industry Tax Credit

Georgia’s reputation as a screen production center was first established in the 1970s when the state served as the location for classic films like Deliverance (1973), Smokey and the Bandit (1977), and television series like The Dukes of Hazzard (1979 — 1985). By 2005, over 500 feature films, television movies, and television series had been shot in the state.23

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23 See the General Assembly findings in Section 1 of House Bill 539 LC 18 4150/A. Georgia General Assembly. Accessible at: https://www.legis.ga.gov/api/legislation/document/20052006/45542
The Georgia Entertainment Industry Tax Credit was established in 2005 through the Georgia Entertainment Industry Investment Act to attract film and television projects to the state. The establishment of the tax credit came as Georgia faced increased competition from other US states, including Louisiana, that had established production incentives during the 1990s and 2000s to develop their own screen production industries.

During HB539’s legislative process to establish the Georgia Entertainment Industry Investment Act, the Georgia General Assembly found that the level of production occurring in Georgia had decreased substantially due to this increased competition. The Georgia General Assembly stated that there are significant economic benefits, job opportunities, and technological innovations generated by the film and television production industry.

“In order to win the jobs and investments these productions bring, there is a need to create incentives to attract investment that will go elsewhere without those incentives. Through the development of carefully crafted, responsible, targeted incentives, the state will benefit from job creation, material and service expenditures, and investment.”

- Georgia General Assembly findings, HB539 (2005)

The initial credit rate for the Georgia Entertainment Industry Tax Credit was 9%, with uplifts available for meeting certain qualifications such as a 3% credit for investing in less developed counties, a 3% credit for hiring Georgia residents, and a 2% credit for film projects over $20 million. A minimum spend level of $500,000 for eligible production expenditure was established as part of the tax credit.

In 2008, the base rate of tax credit was increased to 20%, and the 10% GEP Logo Uplift was introduced for productions that included a qualified Georgia promotion logo in the final production credits. The intention of the GEP Logo Uplift was to promote the state of Georgia. During this restructuring of the tax credit, supplementary credits for film projects in less developed counties, employment of Georgia residents, and projects with investments over $20 million were eliminated.

While announcing the changes to the tax credit, Governor Sonny Perdue stated: “We know that our excellent talent base and outstanding locations make Georgia a very desirable place to film. This legislation puts in place the economic cornerstone that will encourage producers to convert that desire into action.”

The tax credit has undergone additional changes over the past decade, largely to streamline expenditure definitions and adjust to the changing production landscape. During this period, Georgia has experienced significant growth in film and television production and matured into its current position as a global production center. In 2015, Governor Nathan Deal stated: “Georgia’s growth in this industry is a result of the concentrated efforts we’ve made to build a pro-business climate in Georgia, with stable and consistent production tax credits playing a key role.”

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The passing of HB1037 in 2020 ushered in several new changes for the tax credit, including tightening up vendor definitions, requiring projects to be commercially distributed before the GEP Logo Uplift is awarded, and changes to the audit and credit carry-forward process.

HB1037 introduced a mandatory audit requirement, strengthening controls in the system. From 1st January 2021, a staggered schedule was introduced before requiring mandatory audits on all productions certified by GDEcD on or after 1st January 2023. 26 Previously, a voluntary audit program was offered by GDOR. The new procedures require an audit to be paid for and then completed by either an approved certified eligible auditor or GDOR. GDOR then completes a final review before issuing the final certification letter. 27

The Georgia Entertainment Industry Tax Credit is a transferable tax credit. If the credit exceeds the production company’s tax liability, the company can make a one-time sale or transfer of the credit to another Georgia-based company or individual once the production has received final certification from GDOR. A carry-forward period of three years is available on the transfer of tax credits. 28

Figure 16 – Introduction and Key Changes to the Georgia Entertainment Industry Tax Credit

Source: SPI (2023)

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26 Under this staggered schedule, mandatory requirements were first required for all projects first certified by GDEcD on or after 1st January 2021 with a credit amount in excess of $2.5 million; followed by mandatory requirements for all projects first certified by GDEcD on or after 1st January 2022 with a credit amount in excess of $1.25 million. As of 1st January 2023, all productions are required to undertake an audit.

27 Required Mandatory Film Tax Credit Audit and Fees. Georgia Department of Revenue. Accessible at: https://dor.georgia.gov/required-mandatory-film-tax-credit-audit-fees#

28 Film Tax Incentives. Georgia Film. Accessible at: https://www.georgia.org/sites/default/files/2022-09/georgia_film_tax_credit_brochure.pdf
Table 2 – Key Elements of the Georgia Entertainment Industry Tax Credit

<table>
<thead>
<tr>
<th>ELIGIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The tax credit program has an annual minimum spend of $500,000 that can be met with one project or multiple projects across a single tax year</td>
</tr>
<tr>
<td>• The tax credit is available to film, television, and documentary productions, as well as music videos and commercials.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INCENTIVE VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>• It is a transferable tax credit, so if the credit exceeds the beneficiary’s tax liability, the beneficiary is permitted to sell or transfer the credit to another company or individual in the state</td>
</tr>
<tr>
<td>• The tax credit is worth 20% of eligible expenditure</td>
</tr>
<tr>
<td>• In addition to the 20% tax credit, productions that meet the requirements of the GEP Logo Uplift can receive an additional 10%. Alternative marketing opportunities of equal or greater value can be offered in lieu of the promotional credit, subject to evaluation and approval by GDEcD.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OTHER RULES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• There is a salary cap of $500,000 per person, per production, when the employee is paid by “salary,” which is defined as being properly paid by W-2</td>
</tr>
<tr>
<td>• If the production company pays an individual for services as a loanout, as a personal services contract, or a 1099 individual meets the criteria for a loanout, in 2021, 5.75% Georgia income tax must be withheld and remitted by the production company</td>
</tr>
<tr>
<td>• As of 1st January 2023, all projects must go through a mandatory audit. The audit is requested through GDOR and can be completed by either the GDOR or an approved CPA firm. GDOR then completes a final review. These are conducted on a first come-first served basis</td>
</tr>
<tr>
<td>• The Georgia Entertainment Industry Tax Credit has no sunset clause.</td>
</tr>
</tbody>
</table>

3.4. Key Competitors

Georgia is considered a top-tier global production hub and one of the very few major markets in this bracket worldwide. The state not only competes for production with key North American markets but also with key international jurisdictions. Competitors of both types include California, New York, British Columbia, Ontario, Australia, and the UK.

North America is a highly competitive production market with incentives offered across 37 US states and 10 of Canada’s provinces and territories. The spread of these incentives is shown below in Figure 17.
Canadian provinces Ontario and British Columbia operate attractive uncapped production incentives that are bolstered by a federal production incentive. In addition to stable incentive rates between 21.5% and 28% available in Ontario and British Columbia, respectively, the federal Film or Video Production Services Tax Credit – worth 16% on qualified Canadian labor expenditure – can be stacked on top of the provincial incentive programs. This has enabled the two provinces to compete globally, and both are established global production centers. A report published by Film Ontario in 2022 found that Ontario’s film and television industry grew by 70% between 2012 and 2019 and that 86.5% of Ontario’s production activity is directly attributable to the tax credits.

Existing incentives in the US are being enhanced to compete in an increasingly competitive market. In 2023, the annual budget of New York’s production incentive was increased from $420 million to $700 million, and the incentive rate was increased from 25% to 30% to remain competitive. Other states have enhanced their incentives in other ways, such as by increasing the base rate or budget of their incentive (Texas, Arkansas, Oregon), adding new uplifts for productions that meet requirements to hire local workers or shoot in rural parts of the state (Arkansas, Utah) or by extending or removing their sunset clauses (Louisiana).

States in the US are also introducing incentives to encourage infrastructure development and long-term investment commitments. California launched the California Soundstage Filming Tax Credit Program with a budget allocation of $150 million in 2021 to encourage new investments and allocate $850 million for the California Film and Television Production Incentive Program in 2022.

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28 British Columbia also offers uplifts to productions that meet certain requirements
construction and expansion of soundstages in the state.\textsuperscript{32} Both New Mexico and New Jersey have introduced programs that provide benefits exclusive to studio developers, such as an exemption to annual caps (New Mexico)\textsuperscript{33} or access to reserve funding (New Jersey).\textsuperscript{34}

Increasingly, international jurisdictions are introducing uncapped incentives to attract incoming productions in a competitive market.\textsuperscript{35} Two recent examples include Saudi Arabia and Austria, where uncapped incentives have been launched. The Saudi Arabia Film Commission launched its Saudi Arabia Film Incentive Program, offering a cash rebate of up to 40% on production expenses in May 2022.\textsuperscript{36} Austria introduced a 30% cash rebate (FISA+) aimed at international productions, with a 5% uplift offered for productions that meet green filming requirements. While the scheme itself is uncapped, there is a project cap. In the first six months of FISA+ operating in 2023, 32 projects representing over $284 million (€261 million) in qualifying expenditure were approved.\textsuperscript{37} Ireland, which offers the Section 481 tax credit with no annual cap, recently announced plans to increase the incentive’s qualifying expenditure cap from $74 million (€70 million) to $132 million (€125 million).\textsuperscript{38} In 2023, Spain increased its incentive’s per-project cap from a flat $11 million (€10 million) across formats, to $21 million (€20 million) for feature films and $11 million (€10 million) per episode for series.\textsuperscript{39}

The UK and Australia have operated successful uncapped incentives to attract incoming productions and investment. Australia offers three federal incentives, including the Location Offset, designed to attract incoming productions. In May 2023, the Australian Government announced a change to streamline the Location Offset under a single uncapped incentive rate of 30% for all qualifying productions.\textsuperscript{40} Seven of Australia’s states and territories also offer production incentives or grants that can be used to augment the federal incentive offer. The UK offers an uncapped incentive to attract and support film and television production. The incentives offer a rate of 25% of up to 80% of expenditure that is either used or consumed in the UK. The competitive rate and stability offered by the UK’s incentive have stimulated significant non-incentivized investment in studio infrastructure. In February 2023, the local council approved a 1.4 million square feet expansion of Pinewood Studios. Once complete, Pinewood will have 51 purpose-built stages operational.\textsuperscript{41}

\textsuperscript{32} Soundstage Filming Tax Credit Program. California Film Commission. Accessible at: https://film.ca.gov/tax-credit/soundstage-tax-credit/
\textsuperscript{33} Economic Impact of the New Mexico Film Production Tax Credit Study Update. New Mexico Film Office, 19th December 2022. Accessible at: https://nmfilm.com/assets/uploads/NM-Film-Study-Update-2022-2.pdf
\textsuperscript{34} NJEDA Awards First Studio Partner Designation to Lions Gate Films Inc. New Jersey Economic Development Authority, 21st December 2022. Accessible at: https://www.njeda.com/njeda-awards-first-studio-partner-designation-to-lions-gate-films-inc/
\textsuperscript{35} Saudi Arabia is Seeing an Uplift in Film Production since Launching its 40% Rebate. ScreenDaily. 19th May 2023. Accessible at: https://www.screendaily.com/screen-network/saudi-arabia-is-seeing-an-uplift-in-film-production-since-launching-its-40-rebate/article
\textsuperscript{38} The Improvement of Spain’s Tax Incentive for International Filming is Approved. Spain Film Commission, 27th December 2022. Accessible at: http://www.shootinginspain.info/en/noticias/se-aprueba-la-mejora-del-incentivo-fiscal-de-espaha-para-rodajes-internacionales

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Part III:
Economic Impact of Incentivized Production Activity

The Girl From Plainville (2022)
Image credit: Andy Young / Savannah Regional Film Commission
4. ECONOMIC IMPACT OF THE GEORGIA ENTERTAINMENT INDUSTRY TAX CREDIT

4.1. Overview

This Study utilizes an Input-Output ("I-O") approach to economic impact modeling. It uses estimated production expenditure data as an input, utilizing the economic model in IMPLAN software. The methodology is based on a large number of sectoral studies that SPI has undertaken around the world, and it is consistent with international best practice, including studies in the UK, a number of US states, New Zealand, Australia, and Europe. A full detailed methodology can be found in Appendix One – Methodology.

An I-O approach models the interconnections between the screen production industry and other industries in Georgia and the relationships between key metrics, including output, GVA, and jobs.

Jobs can be measured in many different ways. SPI’s approach to estimating jobs is based on a year-round and ‘permanent’ definition of jobs. It is in keeping with the Bureau of Economic Analysis Regional Economic Accounts and the Bureau of Labor Statistics. One job lasting 12 months is equivalent to two jobs lasting six months each. A job can be either full-time or part-time and includes the self-employed.

The total economic impact is the sum of the following three effects:

- **Direct impacts** are the economic uplift in terms of the output, value created (GVA), and jobs in companies directly engaged in incentivized production.
- **Indirect impacts** are the economic uplift in terms of the output, value created (GVA), and jobs effects observed in companies that supply goods and services to incentivized production.
- **Induced impacts** are the economic uplift in terms of the output, value created (GVA), and jobs uplift created because of the wage effects of those working on incentivized production.

This analysis primarily utilizes the IMPLAN economic model focusing on IMPLAN sector 429, which aligns with NAICS 5121 Motion Picture and Video Industries, changing assumptions where SPI deems it is more reflective of the activity under consideration. For example, from production data records, SPI has calculated that 63% of production expenditure goes on payroll/labor costs. The underlying sector data (for Motion Picture and Video Industries) in IMPLAN assumes around 40% of expenditure is on payroll, indicating that some of the payroll paid through payroll companies might be excluded in the standard IMPLAN model. SPI has adjusted the model to better capture this industry practice.

Analysis is displayed by fiscal years (FY). For example, FY 2021 is the fiscal year that starts on 1st July 2020 and ends on 30th June 2021. Unless otherwise stated, results are presented in constant 2023 prices, so results are ‘real’ and adjusted to account for inflation using a standard GDP deflator approach. The economic impact analysis focused on the period since FY 2012.

Analysis in this section focuses on the impact of production expenditure. The impact of studio construction is considered in section 5.

4.2. Production Activity, Expenditure, and Tax Credits

This analysis uses data provided by GDEcD on productions that applied for the tax credit between FY 2012 and FY 2022. Although these data are collected at the time of application, rather than on audit, and are, therefore, based on estimated rather than final audited spend, it is the best available source of data. Canceled productions have been excluded from this.

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41 GDEcD provided data by fiscal year based on the date of application. This approach to assigning projects to years has been maintained.
Overall, tax credit data is a good reflection of the overall scale of film and television production in Georgia. Consultations and survey work indicate that large studios and streamers have only undertaken incentivized productions in Georgia. This, combined with the lack of program and production cap, supports the view that the non-incentivized production happening in Georgia is likely to be low in value.

**The number of productions in Georgia has grown substantially since 2013, most of which are television and episodic content.**

In FY 2022, 437 projects applied for the tax credit (Figure 18). The overall pattern since 2013 is one of substantial growth, from 138 in FY 2013 – a CAGR of 13.7% per year. FY 2012 is an anomaly compared to the other years under consideration, as 61% of projects in that year were commercials. These are smaller and lower budget than the other types of production. By FY 2013, only 23% of projects were commercials. Another notable year is FY 2020, which experienced lower project numbers due to pandemic restrictions.

**Figure 18 – Number of Productions Applying to the Georgia Tax Credit Program, FY 2012 – FY 2022**

Television production and episodic content comprised the majority (54%) of the projects between FY 2012 and FY 2022. Studio feature films comprised 8% and independent features and documentaries 11% of the total number of projects. Apart from the change in the proportion of commercials production between FY 2012 and FY 2013 noted above, there have not been significant changes in the pattern of production types over time when measuring this by project.

**4.2.1. Production Expenditure**

Production expenditure in Georgia has boomed since FY 2012, making Georgia one of the top production hubs in the world. The screen production industry has rebounded quickly.
from the impact of the pandemic, reaching a record production expenditure of $4.39 billion in 2022. Expenditure on episodic production has become more dominant since FY 2018.

Since 2012, production expenditure\(^{43}\) in Georgia has increased at an average annual CAGR of 17.4% – from $880 million in FY 2012 to $4.39 billion by FY 2022.\(^{44}\) The impact of the pandemic can be seen in FY 2020 figures; however, the production industry in the state recovered rapidly, adapting quickly and efficiently to new operating conditions. The screen production industry is reported to have spent $4.1 billion in FY 2023, less than the previous fiscal year but exceeding the $4 billion in direct expenditure reported by the industry during fiscal 2021 as Georgia started to recover from the pandemic.\(^{45}\)

**Figure 19 – Production Expenditure in Georgia, FY 2012 – FY 2023 ($ million)**

Television and episodic content contributed 57% of expenditure on production since FY 2012. According to GDEcD’s definition, studio features accounted for over one-third (36%) of expenditure, as shown in Figure 20.

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\(^{43}\) As set out previously, the value of incentivized productions is highly likely to be close to the overall value of overall production in state

\(^{44}\) Economic impact results for years FY 2012 to FY 2022 have been produced as FY 2023 expenditure data has only recently been released


\(^{46}\) Ibid
While there has been variation year to year, between FY 2012 and FY 2017, studio features and episodic television expenditure accounted for between 40% and 50% of overall expenditure. Since FY 2017, there has been a marked increase in the proportion of television and episodic content produced in Georgia, growing to 58% in FY 2018 and peaking at 70% of total production expenditure in Georgia in FY 2019, before dropping slightly. This reflects a wider industry trend of increasing investment in series content.

In 2022, studio feature productions spent $48.2 million on average per production in Georgia, and episodic television productions spent $9.2 million per application, which includes multiple episodes and/or whole series. There has been a steady upward growth in the average spend on episodic television between FY 2012 and FY 2021, growing at 11.1% a year, although the data suggest a slight decline in this average in FY 2022.

4.2.2. Value of Tax Credits

The value of tax credits issued – and therefore the value of the foregone tax revenue to the state – has risen over time, in line with the growth of the production industry to over $1.3 billion for productions that occurred in FY 2022.\(^{47}\)

Data available from GDEcD does not contain information on the value of tax credits associated with applications, and GDOR data only provides information for audited productions. Therefore, it was necessary to model the tax credit values using the credit rates and the production expenditure data from GDEcD (set out in section 4.2.1 above). The approach to estimating the tax credit value is set out in Appendix Two (section 10.1.2). The value of the tax credits in a particular year is estimated based on the production in that year. The actual foregone tax revenue (the ‘cost’ to the state) will occur for a period of time (at least a year, often up to three years) after the production expenditure.

Note that the tax credit value reported here is the paper value of the tax credits assigned; these are often sold at a value lower than the paper value to other companies. This effectively

\(^{47}\) However, without the incentive the underlying production activity and associated expenditure would not have occurred
reduces the amount the production company receives, but the cost to the state (in foregone revenue) remains the same. The transferable nature of the tax credit provides tax relief to Georgia residents and businesses who purchase the tax credits.

As outlined in section 4.3.2, the amount of production expenditure disallowed at audit is rising. As the Georgia credit is non-selective, the value of the tax credit and the program’s cost reflects the pattern of expenditure with substantial growth since FY 2012, particularly in FY 2021 and FY 2022.

Figure 21 – Estimated Tax Credit Value by Year of Expenditure FY 2012 – FY 2022 ($ million nominal)

Source: SPI analysis of GDEcD data (2023)

4.3. Implementing the Tax Credit – Timing and Value

4.3.1. Flow of Benefits and Costs

There is a lag between productions spending money in Georgia and the issuance of tax credits.

Productions apply for the tax credit slightly before or within 90 days of the start of principal photography in Georgia. Once production is complete, companies submit information and supporting materials to GDOR, and, if required, an audit is completed. From 2023 onwards, all productions require a mandatory audit. After the credit is issued, it is either used by the company or sold through a brokering process to another company with a tax liability in the state. There is a natural lag in such a process, as tax credits are effectively paid in arrears after production expenditure is undertaken, and selling the credits takes time, even in a well-functioning market such as Georgia. The tax credits are then used against the tax liabilities of the purchasing company, leading to lower tax receipts of state government (by the value of the tax credit), in likelihood up to three years after the production expenditure occurred in the state and the associated taxes have been collected.

It has not been possible to access data to provide a clear insight into the timings of all the stages of the process. SPI has been able to access data on key dates for 100 productions, which includes the application for the credit, production schedule, issuance of credit, and the timing of the sale of the credit. These data indicate that the average time between the end of the production (wrap) and the credit being issued is 15 months for these productions. The average time between wrap and a production company receiving the cash from the tax credit sale is 17 months - while this provides useful illustrative information, it is not enough to provide a detailed analysis of how the time lag has changed over time or the reason for changes. It should be noted that changes brought by HB1037, such as mandatory audits and reducing the carry
forward period, are likely to impact the lag in monetizing the credit, although data is not available to assess its full impact.

The ‘cost’ of the incentive is foregone tax receipts by the state. Due to the transferability of the credit, it can be purchased and used to offset the tax liabilities of Georgia taxpayers outside of the screen production industry. The foregone tax receipts are incurred one or more years after the expenditure – and related economic impact – has occurred in Georgia. This gap reflects the time between production, audit, issuing the tax credit, and its subsequent sale and utilization. This delay positively impacts the state's financial position as the ‘costs’ are postponed. The current audit backlog and the increasing processing time contribute to the positive gap for the state.

4.3.2. Audits and Disallowance Rate

The amount of production expenditure that is disallowed at audit is rising.

GDOR provided data on the audits undertaken, the value of production covered, and the level of disallowed spend by year of audit. These data indicate that the disallowance rate – i.e., the proportion of costs that are disallowed at audit – has increased substantially in recent years, from around 1.0% up to FY 2016 to 3% in FY 2021 and 6.0% for those productions audited in FY 2023 (up to 30th April 2023). This reflects GDOR steps to tighten up the audit process and implement mandatory audit processes, as mandated by HB1037.48

Table 3 – Disallowance and Effective Rate

<table>
<thead>
<tr>
<th>Year of Audit</th>
<th>Number of Audits Completed</th>
<th>Disallowance Rate</th>
<th>Effective Rate (Credit Certified/Submitted Costs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2013</td>
<td>10</td>
<td>0.32%</td>
<td>29.9%</td>
</tr>
<tr>
<td>FY 2014</td>
<td>25</td>
<td>1.02%</td>
<td>29.7%</td>
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<tr>
<td>FY 2015</td>
<td>20</td>
<td>0.48%</td>
<td>29.8%</td>
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<tr>
<td>FY 2016</td>
<td>40</td>
<td>0.82%</td>
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<td>FY 2017</td>
<td>34</td>
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<td>29.2%</td>
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<td>FY 2018</td>
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<tr>
<td>FY 2019</td>
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<tr>
<td>FY 2020</td>
<td>53</td>
<td>2.28%</td>
<td>29.3%</td>
</tr>
<tr>
<td>FY 2021</td>
<td>38</td>
<td>3.01%</td>
<td>29.1%</td>
</tr>
<tr>
<td>FY 2022</td>
<td>40</td>
<td>4.87%</td>
<td>28.4%</td>
</tr>
<tr>
<td>FY 2023*</td>
<td>34</td>
<td>6.01%</td>
<td>28.2%</td>
</tr>
</tbody>
</table>

* Partial year up to 30th April 2023.

Source: SPI calculations, based on GDOR Data (2023)

The rise in the disallowance rate can also be identified in a slight reduction in the effective rate of the tax credit program. This rate reflects the credit certified as a percentage of costs submitted for third-party audits,49 which has fallen from 29.9% in FY 2013 to 28.2% in FY 2023. As the economic impact analysis is driven by expenditure estimates on application, which is

48 Administration of Georgia Entertainment Industry Tax Credit – Controls over credit administration have been strengthened. Follow-up Review. Report Number 22-05A. Georgia Department of Audits & Accounts, July 2022. Accessible at: https://www.audits.ga.gov/ReportSearch/download/28397#:~:text=During%20the%202020%20session%2C%20the%20reviewed%20the%20credit%20administration.
49 For more information about the audit process, see section 3.3
the best complete data available, the expenditure estimates have not been adjusted to reflect the change in the disallowance rate.

4.4. Additionality

As part of this Study, a survey was conducted with producers who have used the Georgia Entertainment Industry Tax Credit in the past to understand more about the effects of the tax credit in attracting production into Georgia. Overall, this research finds a very high additionality – i.e., the tax credit attracts a lot of production expenditure that would not have otherwise occurred in Georgia.

The additionality survey conducted by SPI provides a more complete picture of the effect of the tax credit against other factors (see Figure 22). The survey received 44 responses from both in-state and out-of-state production companies. This represents approximately 82% of expenditure in Georgia between FY 2018 and FY 2022.

This type of self-reporting survey could be open to the criticism of response bias in that respondents might over-inflate the importance of the incentive due to anchoring bias or to reduce the risk of loss. To account for this as much as possible, the survey was designed in such a way as to reduce the risk by ensuring other decision factors are considered before the impact of the incentive is tested. A high expenditure coverage rate has been achieved to minimize other types of response. The methodological approach aligns with international best practices for such studies, for example, in the UK.50

The survey asked respondents to rank in order of importance the factors that affected their decision to produce in Georgia. The six factors were cost base, cast, crew, facilities and infrastructure, location, and the Georgia Entertainment Industry Tax Credit. The response options were ordered alphabetically to reduce bias. Each factor was ranked. The average results in Figure 22 are displayed with a higher-ranking score indicating the more important the factor. The results were calculated as a weighted average relating to expenditure in Georgia.

The following figure illustrates how the tax credit is the most important factor when deciding to shoot in Georgia, followed by facilities and infrastructure. Overall, the order of importance is the same for companies whether they are based in Georgia or elsewhere in the US.

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When asked specifically about the importance of the Georgia Entertainment Industry Tax Credit in deciding to undertake production in Georgia (as a scale of one to 10, where one indicates it was not at all a factor and 10 indicates that it was the only factor), 86% ranked it a nine or a 10, with only 9% of respondents choosing five or below. It should be noted that those 9% of respondents represent smaller production companies in terms of Georgia’s spending.

Besides the relative importance of the tax credit, analysis was undertaken into the impact that not having a tax credit would have on expenditure in Georgia. For this, production companies were asked to estimate to the nearest 10% the proportion of the project that would have been made in Georgia in the absence of the tax credit (where 100% indicated the exact same expenditure in the state and 0% indicated no expenditure in the state would have been made at all).

The results indicate that over 50% of projects would not have gone ahead or gone ahead in another country or jurisdiction and that only 8.6% of projects would have gone ahead with the same budget, with the remaining projects going ahead with (in most cases substantially) reduced Georgia expenditure figures. Weighting the results based on the scale of Georgia expenditure results in the insight that the average expenditure loss would have been 92.1% of expenditure, with only an estimated 7.9% of the current expenditure happening in the state in the absence of the incentive. This 92.1% can be thought of as additional activity that can be attributed to the Georgia Entertainment Industry Tax Credit, and this figure is used in the economic analysis to calculate the ‘net’ impact of the incentive.

This high rate of additionality is in keeping with studies of the impact of film and television production in other jurisdictions. In the UK, a spend-weighted rate of additionality was found for the UK tax reliefs to be 92% for film and 84% for high-end television, although for incoming

Source: SPI analysis (2023)
proDUCTIONS THE ADDITIONALITY RATE WAS HIGHER. A 2021 STUDY IN NEW MEXICO FOUND AN ADDITIONALITY RATE OF 92% AND IN UTAH IT WAS FOUND TO BETWEEN 83% AND 100%.

**Figure 23 – Expenditure Estimates in the Absence of the Georgia Entertainment Industry Tax Credit**

<table>
<thead>
<tr>
<th>7.9%</th>
<th>92.1%</th>
</tr>
</thead>
</table>

Would have happened  Would not have happened

Source: SPI analysis (2023)

### 4.5. Economic Output

Between FY 2012 and FY 2022, the Georgia Entertainment Industry Tax Credit has generated over $44.12 billion in total net output (2023 prices). This includes the direct effect within the screen production industry, the indirect effect in the supply chain, and the induced effect caused by those working in the industry and the supply chain spending their wages in the state economy. This does not include the effect of productions that would have happened in Georgia in the absence of the incentive.

Reflecting the strong growth in production expenditure during the period, the total output footprint of production activity has expanded from $1.47 billion in FY 2012 to $7.61 billion in FY 2022.

Between FY 2012 and FY 2022, direct output within firms engaged in production represented slightly more than half of the total output at 54%. Supply chain (indirect effects) account for 17% of the total output effects and induced 25%. In FY 2022, the tax credit has reached its highest so far, with a substantial $7.61 billion in output generated.

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54 Unrounded number is $7,614,653,960, therefore rounded to millions this is 7,615 million and in billions to 2 decimal places $7.61 billion
Economic impact of the Georgia Entertainment Industry Tax Credit

Figure 24 – Output Supported by the Georgia Entertainment Industry Tax Credit FY 2012 – FY 2022 ($ million, 2023 prices)

Source: SPI analysis (2023) Note: analysis based on production activity only

4.6. GVA

GVA is a key measure of the additional economic value created by an activity. Broadly, it is the difference between gross output and the value of intermediate input and is aligned to the concept of GDP.

Between FY 2012 and FY 2022, the Georgia Entertainment Industry Tax Credit generated over $29.23 billion in total GVA. Illustrated in Figure 25, as with the other indicators, GVA grew strongly during the period, reaching $5.03 billion in FY 2022. Direct GVA accounted for the majority (59%) of the total GVA generated over the period of FY 2012 to FY 2022, indirect effects 16%, and induced 25%.

Figure 25 – GVA Supported by the Georgia Entertainment Industry Tax Credit FY 2012 – FY 2022 ($ million, 2023 prices)

Source: SPI analysis (2023) Note: analysis based on production activity only
4.7. Labor Income

Labor income, comprising wages, salaries, and bonuses, stands as the primary financial income for individuals, underpinning their sustenance and standard of living. It incorporates the earnings of full and part-time employees, as well as self-employed workers. It includes the values of benefits such as pension contributions and health benefits.

Between FY 2012 and FY 2022, the Georgia Entertainment Industry Tax Credit generated over $18.16 billion in total labor income. As shown in Figure 22, labor income has progressed upwards, reaching $3.14 billion in FY 2022. Direct labor income accounted for the majority (62%) of the total labor income generated over the period of FY 2012 to FY 2022, indirect effects 16%, and induced 22%.

Figure 26 – Labor Income Supported by the Georgia Entertainment Industry Tax Credit FY 2012 – FY 2022 ($ million, 2023 prices)

Source: SPI analysis (2023) Note: analysis based on production activity only

4.8. Employment

Film and television production provides highly skilled, well-paid jobs that are less susceptible to automation and provide important benefits such as health insurance and retirement contributions. The average wage for those working in the motion picture and video industry in the US is $86,000, significantly higher than the Georgia state average of $58,000 across all sectors.

There are various ways to measure employment in production activity. To account for the nature of employment in the sector and make it more comparable to others, SPI uses an annualized job figure that is calculated in the IMPLAN software and follows the same definition as the Bureau of Economic Analysis Regional Economic Accounts and the Bureau of Labor

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55 The average labor income per job from the IMPLAN model is outlined in Appendix One – Methodology
56 This includes workers across the value chain, including people working in production, post-production, distribution and exhibition. The average wage for those working solely in production may be higher
Statistics. One job lasting 12 months is equivalent to two jobs lasting six months each. A job can be either full-time or part-time and includes the self-employed and freelancers. As outlined in Figure 27, between FY 2012 and FY 2022, the number of jobs the tax credit supported increased four-fold from 12,800 in FY 2012 to 53,000 in FY 2022. Supporting an average of 29,500 jobs each year. In FY 2022, the tax credit supported 30,400 direct jobs engaged directly in production and 9,000 jobs in the supply chain. A further 13,600 jobs are due to the induced effect.

**Figure 27 – Jobs Supported by the Georgia Entertainment Industry Tax Credit FY 2012 – FY 2022**

![Graph showing jobs supported by the Georgia Entertainment Industry Tax Credit]

Source: SPI analysis (2023) Note: analysis based on production activity only

### 4.9. Case Study: Savannah

The Savannah Economic Development Authority (“SEDA”) facilitates business attraction, retention, and expansion in Savannah, operating various divisions, including the Savannah Regional Film Commission (“SRFC”). The film commission serves as the central point of contact for film and television production in Savannah and the region, liaising between film companies and local municipalities. It also offers location assistance and coordinates with local businesses and crews. The film commission builds on Savannah’s rich film and television history with prominent productions, such as *Forrest Gump* (1994), *Midnight in the Garden of Good and Evil* (1997), *Lady & The Tramp* (2019), *The Underground Railroad* (2021), and *The Menu* (2022).

The film commission established the Savannah Entertainment Production Incentive, a structured financial rebate to encourage film and television production in Chatham County, in 2015. The incentive is applicable for projects with a minimum budget of $4 million and a qualified local spend of at least $500,000. Key conditions include requiring the main production office to be located in Chatham County and at least 50% of shooting days to occur within 60 miles of Savannah’s City Hall. The incentive can be used alongside the Georgia state tax...

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59 All jobs figures have been rounded to the nearest 100

© Olsberg•SPI 2023  6th November 2023
incentive and caps at $100,000 per feature film and $250,000 per episodic production and offers a 10% rebate on qualified expenses, including a comprehensive range of above-the-line and below-the-line costs. An additional bonus incentive of $25,000 is available if 50% of the crew have their primary residence within the state of Georgia and are located within 60 miles of Savannah City Hall.

Aims and Objectives

SEDA and the SRFC aim to establish Savannah and the region as a premier hub for film and television productions. Their key objectives include attracting new projects, retaining and expanding existing film and television businesses, and fostering local talent.

Impact

In 2022, there was nearly $207 million in direct spending by entertainment productions in Savannah by 101 productions. The city was also voted second best in a list of small cities and towns for filmmakers to live and work by MovieMaker magazine. In 2019, 129 professional projects, including eight feature films, 18 television projects, and 12 commercials, were filmed in Savannah, generating $125.6 million in direct spending and $266.3 million in economic impact.

In 2014, Savannah was home to only a small number of crew members engaged in the screen production industry. Following the implementation of the Savannah incentive by the SRFC, the city and wider Chatham County area has experienced considerable growth in this industry. In 2023, Savannah has more than 300 unionized crew members and over 600 total crew members listed on the SRFC crew database with at least one production credit. The incentive has facilitated numerous career opportunities, driven by a consistent influx of film and television productions, including Baywatch (2017), The Girl From Plainville (2022), Devotion (2022), and May December (2023). Additionally, the city hosts five universities offering film or media programs, which serve as a direct workforce pipeline to the local production industry. For

60 Film Business is Good Business. SEDA, 2022. Accessible at: https://seda.org/industries/entertainment-production/
example, the GFA offers a Film & Television Production Certificate, which can be earned at Savannah State University, whose film department collaborates with the GFA to develop courses.\(^6\)

The tourism industry in Savannah has exhibited robust growth, serving as a vital economic pillar for the city. In 2021, the city attracted 15.2 million visitors, contributing to an 18% increase in visitor spending to $3.3 billion.\(^5\) Screen tourism has been established within this thriving tourism landscape as a unique offer connecting key Savannah locations with the celebrated films that are shot there. For example, the Savannah Segway Movie Tour offers a 75-minute experience that utilizes Segways to transport tourists across the city to iconic film locations, such as those featured in Forrest Gump (1994) and Something To Talk About (1995). This adds a layer of engagement for visitors and capitalizes on the city's long-standing history as a film location. Similarly, Savannah Movie Tours and More provides a comprehensive cinematic experience in a luxury, climate-controlled minibus, enhancing the city's appeal to a diverse range of tourists.

Significant advancements are taking place in Savannah's infrastructure for the film and television production industry. Savannah Film Studios, a part of the Savannah College of Art and Design (“SCAD”) and first opened in 2014, is currently undergoing a significant expansion which will provide students with an opportunity to train in a cutting-edge professional environment. In autumn 2021, SCAD introduced an advanced mixed-reality LED volume stage at this facility. This state-of-the-art facility employs camera tracking and real-time rendering technologies to generate a fully immersive virtual environment, which can be viewed live on set and captured directly on camera. Additional projects are also underway, including a backlot and three supplementary facilities, all part of a 10.9-acre development plan. The initial stage of the three-phase backlot project is scheduled for completion in late 2023.\(^4\)

\(^6\) Film at Savannah State University. Savannah State University. Accessible at: https://www.savannahstate.edu/class/departments/mass-communications/gfamain.shtml

\(^5\) Tourism. Savannah Area Chamber. Accessible at: https://www.savannahchamber.com/economic-development/tourism/

Part IV:
Economic Impact of Studio Infrastructure Development
5. **STUDIO INFRASTRUCTURE DEVELOPMENT IN GEORGIA**

5.1. **Overview**

The growth of Georgia’s film and television production industry has led to significant growth in developing studio infrastructure. As of September 2023, Georgia has approximately 5.7 million square feet of stage space across 58 facilities for a total of 212 stages (141 purpose-built, 39 conversions, and 32 warehouses).

This growth has seen $1.28 billion spent on studio construction between FY 2012 and FY 2022. Such construction activity generated by studio investment in Georgia generated over $2.49 billion in total net output and $1.36 billion in GVA from direct, indirect, and induced activity.

These figures are set to rise further. Investment is estimated to reach $2.93 billion in the five years to FY 2027, with new investments being made in production soundstages. The planned investments are projected to generate another $5.72 billion in output over the course of FY 2023 to FY 2027 and $3.15 billion in GVA. The stability of Georgia’s incentive has stimulated this long-term investment.

5.2. **Growth in Georgia’s Studio Infrastructure**

As of September 2023, Georgia has approximately 5.7 million square feet of stage space, of which 2.6 million square feet is dedicated soundstage space across 141 purpose-built stages. This represents enormous growth in only a very short period.

By comparison, in 2012, the GDEcD website noted ‘exponential growth in infrastructure,’ with four soundstages available at that time.

*Figure 28 – Number of Soundstages in Georgia, 2011 and 2023*

This growth reflects a significant number of new studios built in the state and expansions to existing facilities, including Trilith Studios, Tyler Perry Studios, Cinelease Studios – Three Ring and Shadowbox. Also among these expansions is EUE/Screen Gems Studios in Atlanta. Since opening in 2010, EUE/Screen Gems Studios has housed productions such as *Flight* (2012),

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65 The construction analysis time periods are FY 2012 to FY 2022 and FY 2023 to FY 2027 to align with the production analysis, which is FY 2012 to FY 2022 due to data availability

Stranger Things (2016-present), and parts one and two of The Hunger Games: Mockingjay (2014, 2015, respectively). In 2022, a 90,000 square feet expansion was announced, with plans to add an additional three soundstages, new production offices, and support space on the 33-acre site. EUE/Screen Gems now offers 13 soundstages ranging from 11,373 square feet to 21,429 square feet.

In addition to significant levels of soundstage construction, the growth of the screen production industry in Georgia has also led to a range of additional developments, including large residential projects like Town at Trilith. Tyler Perry Studios has also announced a public entertainment district to be built alongside Tyler Perry Studios, which will include restaurants, theaters, a grocery store, residential units, and a Tyler Perry Studios museum.

As a result of the growth and investment in studios, Georgia is among the world’s top-tier production centers, alongside hubs like Los Angeles, New York, British Columbia, Ontario, and the UK.

5.3. Studio Infrastructure in Georgia
5.3.1. Existing Studio Infrastructure

Georgia’s 5.7 million square feet of stage space is made up of 58 facilities, ranging from major developments like Cinelease Studios – Three Ring (14 stages), and Tyler Perry Studios (12 stages) to facilities like Atlanta Filmworks (one stage) and Third Rail Studios (three stages).

Figure 29 – Current Georgia Studio Facilities by Number of Stages, 2023

Each bar represents an individual Georgia studio facility. Analysis accurate as of July 2023. New stages may have become operational since the initial analysis. Source: GSEC, SPI analysis (2023)

This diversity of infrastructure allows Georgia to attract productions with a range of different budget levels, technical requirements, and creative specifics. In general, tentpole productions

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69 For more information on the Trilith Town residential project, see section 6.1
will gravitate towards larger high-spec facilities with vendors onsite, where sets can be built across multiple stages and specialist equipment is readily available. On the other hand, converted facilities that offer fewer (sometimes single) larger spaces can be a perfect match for certain productions and benefit from being in close proximity to Georgia’s crew and vendors.

Furthermore, by providing a variety of soundstages and studio campuses, Georgia can ensure that independent, local, or student productions can continue to gain access to production space necessary for their projects and are not priced out of the market. Productions of this type provide vital training opportunities for local crew and are instrumental in ensuring a diverse range of stories and voices continue to be produced in Georgia.

A breakdown of Georgia’s infrastructure by facility type is included in the table below.

**Table 4 – Operational Georgia Studio Infrastructure by Facility Type, 2023**

<table>
<thead>
<tr>
<th>Type</th>
<th>Total Stages</th>
<th>Total Stage Space (sqft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose-built</td>
<td>141</td>
<td>2,634,376</td>
</tr>
<tr>
<td>Conversion</td>
<td>39</td>
<td>1,666,509</td>
</tr>
<tr>
<td>Warehouse</td>
<td>32</td>
<td>1,381,969</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>212</strong></td>
<td><strong>5,682,854</strong></td>
</tr>
</tbody>
</table>

Note: Analysis accurate as of July 2023. New stages may have become operational since the initial analysis. Source: GSEC, SPI (2023)

A number of Georgia’s studios have been established by converting existing but unused infrastructure such as warehouses, development plants, and army bases. Assembly Studios Atlanta constructed several purpose-built studios on the General Motors assembly site, which was closed in 2008. BlueStar Studios – expected to open in 2023 – is transforming the former Fort Gillam Army base in Forest Park into a state-of-the-art studio facility. OFS in Gwinnett County is located on an old AT&T site that was repurposed to produce fiber optics before becoming a mixed-use studio site with over 300,000 square feet of warehouse and soundstage space available. Tyler Perry Studios – opened in 2019 – is housed on 330 acres of the former Fort McPherson Army Base. Repurposing these sites as film and television production studios ensures that Georgia can continue meeting the expanding needs of the screen production industry while also providing new places of employment to Georgia residents.

Most of Georgia’s existing stage space is situated in or around Metro Atlanta, reflecting Atlanta’s growth as the primary production hub within Georgia. Crew, vendors, and ancillary businesses develop around studios, creating strong clustering effects. Nonetheless, there are a number of studio facilities in other parts of the state.

The recently-opened Athena Studios is a significant new production facility in Georgia. The 45-acre site includes 200,000 square feet of dedicated space for television and film productions, featuring 82,000 square feet of column-free stage space and 98,000 square feet designated for office, mill, and flexible areas. A further 65 acres in a site adjacent to Athena Studios has been purchased and earmarked for future expansions.\(^7^1\) Athena Studios has collaborated with the University of Georgia to provide students of the Master of Fine Arts Film program and the GFA access to a state-of-the-art 14,600 square feet soundstage. Adjacent to this stage is a dedicated learning center with a mini stage, classrooms, and office spaces.\(^7^2\) These facilities

\(^7^1\) Anticipated Demand Prompts Expansion for Athena Studios. Athena Studios, 16\(^{th}\) August 2022. Accessible at: [https://athenastudiosga.com/AthenaStudios_PR_Anticipated-Demand.pdf](https://athenastudiosga.com/AthenaStudios_PR_Anticipated-Demand.pdf)

enable students to immerse themselves in hands-on film production activities and find jobs in the industry.

5.3.2. Proposed Studio Infrastructure in Georgia

In addition to the amount of stage space developed over the past decade, there are significant plans to further expand Georgia’s production infrastructure. These proposed developments are a mix of new facilities and expansions of existing facilities. Table 5 aggregates announced and verifiable studio infrastructure developments by county, number of new stages, and the stage space in square feet. If these six studio developments (four new developments, two expansions) proceed as planned, a further 1.4 million square feet across 77 new stages will be added to Georgia’s current soundstage offer. This would increase Georgia’s total stage space (existing plus proposed) to just above seven million square feet.

Table 5 – Planned Georgia Studio Infrastructure, 2023

<table>
<thead>
<tr>
<th>Studio Facility</th>
<th>County</th>
<th>Number of New Stages</th>
<th>Stage Space (sqft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assembly Studios Atlanta</td>
<td>DeKalb</td>
<td>19</td>
<td>336,256</td>
</tr>
<tr>
<td>BlueStar Studios</td>
<td>Clayton</td>
<td>14</td>
<td>308,000</td>
</tr>
<tr>
<td>Cinema South</td>
<td>Fayette</td>
<td>2</td>
<td>39,600</td>
</tr>
<tr>
<td>Lionsgate</td>
<td>Douglas</td>
<td>12</td>
<td>197,000</td>
</tr>
<tr>
<td>Shadowbox Studios (Expansion)</td>
<td>DeKalb</td>
<td>22</td>
<td>343,200</td>
</tr>
<tr>
<td>Trilith Studios (Expansion)</td>
<td>Fayette</td>
<td>8</td>
<td>160,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>77</strong></td>
<td><strong>1,384,056</strong></td>
</tr>
</tbody>
</table>

Source: GSEC, SPI (2023). Note: Analysis accurate as of July 2023. New stages may have become operational and new developments may have been announced since the initial analysis.

Shadowbox Studios – formerly Blackhall Studios – is a purpose-built facility located in Atlanta. The studio currently features 200,000 square feet of stage space across nine soundstages and a further 650,000 square feet of support space. The proposed expansion will add a further 22 stages and 343,200 square feet of stage space to the facility, making it among the largest studio facilities in Georgia once complete.73

Assessing the Economic Impact of Studio Construction

This analysis focuses on the construction impacts of new studios and the expansion of existing studios in Georgia between FY 2012 and FY 2022 (actual) and FY 2023 to FY 2027 (anticipated) gathered in the primary research. The economic modeling uses construction expenditure gathered from studio providers as the key data input and runs the analysis in IMPLAN software. A more detailed explanation of the methodology is included in Appendix One – Methodology.

As with the production economic impact assessment, the total economic impact of the construction analysis is the sum of the following three effects:

- **Direct impacts** are the economic uplift in terms of output, value created (GVA) and jobs within the construction sector resulting from the increase in contracts and activity associated with the construction of studios.
- **Indirect impacts** are the output, value created (GVA), and jobs uplift observed in the supply chain resulting from studio construction.
- **Induced impacts** are the output, value created (GVA), and jobs uplift created by the wage effects of those working in the construction sector and supply chain on activity supported by the construction of studios.

SPI’s approach to estimating jobs is based on a year-round and ‘permanent’ definition of jobs. This means that if one person is working full time on a three-month contract, this would be counted as 0.25 of a job. SPI adopts this approach as it enables comparison across industries and countries.

As with any analysis of this nature, there are limitations to the methodology and the practical application of the methodology. I-O modeling relies on a static model that assumes no supply-side constraints, i.e., constant return to scale and a fixed input structure (see Appendix One –
Methodology for more details). There are some information gaps, and there may be some sensitivity around some of the assumptions used, such as the self-reported nature of the additionality survey.

The analysis is displayed by fiscal years (FY). For example, FY 2021 is the fiscal year that starts on 1st July 2020 and ends on 30th June 2021. Unless otherwise stated, results are presented in constant 2023 prices. The economic impact analysis focuses on the period since FY 2012.

When a studio is built or expanded, it supports the screen production industry and enables new production activity. These effects are included in the production economic impact analysis (section 4) and are not included in this construction analysis.

5.5. Additionality

As part of this study, quantitative research was conducted with studio owners, operators, and investors to gather robust data on the value of studio investment and to understand how the tax credit has influenced studio investment decisions in Georgia. Overall, this research found a strong connection between decisions to invest in constructing and redeveloping studios and the Georgia incentive. There is strong evidence to suggest that without the incentive program, there would be no or very little investment in studios in Georgia and that planned investment is dependent on the tax credit program.

The additionality survey conducted by SPI provides a more complete picture of the effect of the tax credit against other factors (see below). The survey received a total of 18 responses, which represents 96% of construction investment between FY 2012 and FY 2022.

5.5.1. Previous Investments

Amongst the 18 respondents, 16 have invested in studios in Georgia over the last 10 years.

When asked specifically about the importance of the Georgia Entertainment Industry Tax Credit in deciding to invest in Georgia (on a scale of one to 10, where one indicates it was not at all a factor and 10 indicates that it was the only factor), all 16 respondents responded between eight to 10, with 62% answering with a 10.

Besides the relative importance of the tax credit, SPI investigated the impact that not having a tax credit would have on studio construction investment in Georgia. For this, companies were asked to estimate to the nearest 10% the proportion of investment that would have been made in Georgia in the absence of the tax credit (where 100% indicated the exact same investment in the state and 0% indicated no investment would have been made in the state at all).

Results show that 94% of respondents indicated that their studio investment would not have gone ahead or gone ahead in another country or jurisdiction in the absence of the Georgia Entertainment Industry Tax Credit. Only one respondent (6%) indicated that the studio development would have occurred without the tax credit, but the investment would have been only 10% of the original amount. Weighting the responses by the scale of the investment results in an average investment loss of 100%, i.e., there would have been no investment in studio construction in the absence of the incentive.\(^7^4\) This 100% can be thought of as additional activity that can be attributed to the Georgia Entertainment Industry Tax Credit.

\(^7^4\) This number is rounded to the nearest tenth of one percent
5.5.2. Future Planned Investments

Among the 18 respondents, 15 answered that they have plans to invest in Georgia over the five years to FY 2027.

When asked specifically about the importance of the Georgia Entertainment Industry Tax Credit in their decision to invest in Georgia in the future (on a scale of one to 10, where one indicates it was not at all a factor and 10 indicates that it was the only factor), 100% of the 15 respondents who have plans to invest in Georgia over the five years to FY 2027 selected a response between eight and 10, with 73% answering with a 10. This means that for at least 73% of the surveyed respondents with plans to invest in Georgia, the Georgia Entertainment Industry Tax Credit was the only factor in their decision. The remaining 27% consider the tax credit of great importance.

Besides the relative importance of the tax credit, SPI examined the impact that not having a tax credit would have on the planned construction investment in Georgia. For this, companies were asked to estimate to the nearest 10% the proportion of investment that would have been made in Georgia in the absence of the tax credit (where 100% indicated the exact same investment in the state and 0% indicated no investment would have been made in the state at all).

Over 90% of respondents indicated that none of their construction investment would go ahead or it would go ahead in a different jurisdiction in the absence of the tax credit. Only one respondent indicated that their investment is likely to go ahead, but with only 10% of the currently planned investment.

Weighting responses based on the scale of the construction investment, the average investment loss would have been 100% of the planned investments. This 100% can be thought of as additional activity that can be attributed to the Georgia Entertainment Industry Tax Credit.

Source: SPI analysis (2023)
5.6. Output

Between FY 2012 and FY 2022, construction activity generated by studio investment in Georgia generated over $2.49 billion in total net output. This total includes direct, indirect, and induced effects. The $2.93 billion anticipated to be spent on studio construction projects between FY 2023 and FY 2027 could generate a further $5.72 billion in output.

As shown in Figure 33, the total output generated by studio construction investment in FY 2022 was $939 million. Output is forecasted to peak in FY 2025 at $2.1 billion due to significant construction expenditure forecast for that year.

Figure 33 – Output Supported by Construction Investment FY 2012 – FY 2027 ($ million, 2023 prices)

From FY 2012 to FY 2022, the direct output represented slightly more than half of the total output at $1.28 billion, or 52%. In addition, $505 million in output was generated within the supply chain, complemented by a substantial $699 million related to the subsequent wage effects.

For the five years to FY 2027, projections indicate that the direct output associated with the planned construction of studios is anticipated to reach a substantial $2.93 billion. Furthermore, an estimated $1.16 billion is expected to be generated within the construction supply chain, accompanied by a significant $1.63 billion resulting from wage effects.

Note: These figures are in 2023 prices.
5.7. GVA

GVA is a key measure of the additional economic value created by an activity. Broadly, it is the difference between gross output and the value of intermediate input and is aligned to the concept of GDP.

Between FY 2012 and FY 2022, studio construction activity in Georgia has generated over $1.36 billion in total GVA. This total includes direct, indirect, and induced effects. The planned future investments are set to provide a $2.93 billion boost in construction expenditure which could generate a further $3.15 billion in GVA over FY 2023 – FY 2027. In 2022, the GVA generated by studio construction in Georgia was $517 million. GVA is forecasted to peak in FY 2025 at a level more than double the total GVA in FY 2022, also reflecting the significant construction expenditure forecast for that year.
Economic impact of the Georgia Entertainment Industry Tax Credit

**Figure 35 – GVA Supported by Construction Investments FY 2012 – FY 2027 ($ million)**

Total GVA generated between FY 2012 and FY 2022 ($1.36 billion) includes $686 million in direct GVA, $266 million in indirect GVA, and $409 million in induced GVA (Figure 36).

Looking at the five years to FY 2027, the construction expenditure planned for the fiscal years 2023 to 2027 is anticipated to bring $1.58 billion in direct GVA, $611 million of GVA in the supply chain, and $954 million in wage effects.

**Figure 36 – GVA Associated with the Construction of Studios in Georgia, Actual FY 2012 – 2022 and Anticipated FY 2023 – FY 2027 ($ million)**

5.8. **Labor Income**
Labor income, comprising wages, salaries, and bonuses, stands as the primary financial income for individuals, underpinning their sustenance and standard of living. It incorporates the earnings of full and part-time employees, as well as self-employed workers. It includes the values of benefits such as pension contributions and health benefits.

Between FY 2012 and FY 2022, activity associated with studio construction generated an estimated $1.03 billion in labor income. This total includes direct, indirect, and induced effects. Studio construction activity is forecasted to generate up to $2.40 billion labor income between FY 2023 and FY 2027.

**Figure 37 – Labor Income Generated by Construction Investments FY 2012 – FY 2027 ($ million)**

Source: SPI analysis (2023) Note: analysis based on construction investment only

Between FY 2012 and FY 2022, the direct labor income from actual construction investments is estimated to be $660 million, with an additional $155 million in indirect labor income and $216 million in induced labor income generation.

Between FY 2023 and FY 2027, the income generated is projected to be substantially higher than in the last 10 years. The direct labor income is anticipated to be $1.55 billion for the five years from FY 2023. Additionally, within the supply chain (indirect), an estimated $351 million in labor income is expected to be generated. Furthermore, $503 million in labor income is projected to be generated from wage effects (induced).
Figure 38 – Labor Income Associated with the Construction of Studios, Actual FY 2012 – FY 2022 and Anticipated FY 2023 – FY2027 ($ million)

Source: SPI analysis (2023) Note: analysis based on construction investment only

5.9. Employment

The jobs estimates presented are annualized figures, so one three-month contract is equivalent to 0.25 of a job. A job can be either full-time or part-time and includes self-employed workers. All jobs figures are rounded to the nearest 100.

In FY 2022, construction activity associated with studio investment generated an estimated 6,700 jobs from direct, indirect, and induced activity. With the expansion in studio investment, this is predicted to rise to more than 15,400 in FY 2025 before falling as forecast construction activity declines to 3,400 in FY 2027.
Figure 39 — Jobs Supported by Construction Investment in Georgia FY 2012 – FY 2027

Source: SPI analysis (2023) Note: analysis based on construction investment only

Figure 40 shows that, in FY 2022, 4,200 direct jobs in the construction industry in Georgia can be attributed to the investment in studio construction and expansion. A further 800 were supported in the construction supply chain (indirect jobs) and 1,700 induced jobs. By FY 2025, when construction expenditure is forecast to peak, jobs supported are estimated to be 15,400.

Figure 40 — Jobs Supported by Construction Investment in Georgia, FY 2022 and FY 2025*

Source: SPI analysis (2023) Note: analysis based on construction investment only *anticipated peak construction year
5.10. Combined Return on Investment – Production and Construction

Economic ROI is a measure of how much economic value is created per $1 of investment in tax credits by the state. The cost to the state is the estimated total value of the tax credits minus the additional state and local taxes received because of the uplift in activity.

This section sets out the ROI for the combined incentivized production activity and the non-incentivized studio construction activity leveraged by the Georgia Entertainment Industry Tax Credit.

Overall, the tax credit program has a positive and significant economic ROI.

**Figure 41** – Economic Return on Investment of the Georgia Entertainment Industry Tax Credit – Combined Production and Studio Construction Activity, FY 2012 – FY 2022

Across the Study years (FY 2012 to FY 2022), the overall economic ROI is 6.3, meaning that for every $1 invested through the program, the benefit to the state economy is $6.30 in terms of additional economic value from direct, indirect, and induced effects.

The direct ROI is 3.7, meaning that $3.70 of GVA is generated within film and television production and construction due to the $1 investment, indirect ROI (supply chain value created) is $1.00, and a further $1.60 due to induced effects.

As set out in section 4.3, there is a delay between the expenditure of incentivized productions and the cost to the state in terms of foregone tax revenues. This delay has a real positive impact on the state balance sheet. SPI has undertaken sensitivity analysis to explore what different modeling assumptions and time delays have on the overall GVA ROI, the results of which can be found in section 12. Under whatever assumptions used, the GVA ROI increases as the time lag between production and the utilization of the tax credit increases.
6. LOCAL PRODUCTION INFRASTRUCTURE IMPACT IN GEORGIA

6.1. Case Study: Trilith Studios

6.1.1. Introduction

Since it was established in 2013, Trilith Studios has grown to be the largest production facility in Georgia. It has sparked investment in the local area, directly leading to the Town at Trilith community development.

Trilith Studios is a major film and television production studio located in Fayetteville. The studio was established in 2013 as a collaboration between the Pinewood Group and River’s Rock LLC. It has since evolved into a comprehensive media ecosystem, encompassing various facilities and services composed of Trilith Studios, Town at Trilith, Trilith Foundation, and the Trilith Institute. It is the largest production facility in Georgia.\(^76\)

The studio currently offers 32 soundstages,\(^77\) spanning 653,150 square feet across more than 1.5 million square feet of production facilities – including construction workshops, costume shops, and an extensive 400-acre backlot.\(^78\) The campus is a one-stop shop for producers with 38 production support vendors onsite, including MBS Equipment Company, The Third Floor, The Imaginarium Studios, HERC Entertainment Rentals, and TRP Worldwide. The studio has been the production site for several major film and television productions, notably Spider-Man: No Way Home (2021), Avengers: Endgame (2019), Black Adam (2022), live audience television shows like College Bowl (1953-present), Family Feud (1976-present), Wild’N’Out (2005-present), and streaming shows like WandaVision (2021) and The Falcon and The Winter Soldier (2019-2022). Trilith has a further stage called the Prysm Stage, which is a virtual production volume in a purpose-built 18,000 square feet stage. The space incorporates 360-degree LED walls and overhead panels. This facility can house sizeable set elements and support in-camera visual

\(^76\) Trilith Studios seeking big expansion along Veterans Parkway. The Citizen 11\(^{th}\) August 2022. Accessible at: https://thecitizen.com/2022/08/11/trilith-studios-seeking-big-expansion-along-veterans-parkway/

\(^77\) Note: the eight new soundstages identified in section 5.3.2. were completed in August and are included in this total

\(^78\) Trilith Studios Soundstages. Trilith Studios. Accessible at: https://www.trilithstudios.com/stages
effects. It utilizes game engine-based video display capabilities. Moreover, there is a distinct stage specifically intended for vehicle filming.\(^7^9\)

The town at Trilith, formerly known as Pinewood Forest, is a meticulously designed 235-acre European-inspired town located adjacent to Trilith Studios. Envisioned as a gathering place for creatives, artists, storytellers, and makers, the community is currently home to approximately 1,000 residents who live in 325 single-family homes and 265 multi-family homes.\(^8^0\) At maximum capacity, the town can host 5,000 residents to live in 1,400 homes that accommodate the price sensitivities of creatives in all stages of their careers.

A notable feature of Trilith's residential areas is the commitment to sustainability; they form the largest geothermal community in the US. A significant 51% of the town's area is dedicated to green spaces. There are 15 miles of nature trails, 54 acres of forest, 19 landscaped parks, and tennis and basketball courts, among other recreational facilities. In alignment with its commitment to wellness, fitness, and education, Trilith houses the Piedmont Wellness Center, a leading 60,000-square-foot fitness facility.\(^8^1\) Additionally, the town supports a K-12 micro-school with a narrative arts emphasis and cutting-edge technology named The Forest School, open to those living outside of Trilith.\(^8^2\)

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\(^8^0\) Trilith. New Homes Division. Accessible at: [https://newhomesdivisionga.com/communities/trilith/#:--text=Previously%20known%20as%20Pinewood%20Forest%20and%20townhomes%20to%20custom%20%20designed](https://newhomesdivisionga.com/communities/trilith/#:--text=Previously%20known%20as%20Pinewood%20Forest%20and%20townhomes%20to%20custom%20%20designed)

\(^8^1\) Ibid

\(^8^2\) The Forest School. Trilith Studios. Accessible at: [https://www.trilithstudios.com/vendor/the-forest-school](https://www.trilithstudios.com/vendor/the-forest-school)
The Pinewood Group initiated this venture in collaboration with River’s Rock LLC in April 2013, with an initial facility size of 690 acres, housing a minimum of five soundstages. The studio’s inaugural production was Marvel Studios’ *Ant-Man* (2015), which shot at the studio in September 2014. The transformation to Trilith Studios occurred in October 2020, post Pinewood’s divestment in August 2019 to River’s Rock LLC. In November 2021, Trilith publicized a partnership with NEP Virtual Studios, heralding the opening of the Prysm Stage virtual production facility in early 2022. The fifth phase of Trilith Studios, which will be spread across an expanding footprint of 740 acres, is scheduled to open in 2023, with a further two stages to be finished in 2024.

Trilith Studios has recently initiated a significant expansion through the Development of the Regional Impact process. The current proposal entails a substantial 4.7 million square feet expansion, encompassing studio, production, office, warehouse, and retail spaces. Additionally, it will include 55 residential units. This expansion extends from the existing Trilith Studios property, moving southwards to Highway 54. The total project covers 933 acres. When completed, the entire development will consist of 6.9 million square feet of integrated space, with a projected completion date in 2032.

6.1.2. **Construction Activity**

Trilith Studios has invested significantly in studio development and expansion in the last nine years, and the planned construction activity is set to provide a large boost to the local economy.

Between FY 2014 and FY 2022, $172 million was invested in the construction of the studio (Figure 4.2). The studio complex stimulated the development of Town at Trilith, which included the construction of infrastructure, homes, offices, and other facilities. Construction costs of these developments total $428 million between FY 2017, when the first investments were made, to FY 2022. Since FY 2018, the overall construction investment averaged $97.9 million a year.

There is much more investment in the pipeline, with FY 2024 and FY 2025 seeing construction spending in Fayette County peaking at $640 million and $742 million. In the five years from FY

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2023, $1.2 billion is planned for the construction of new production facilities and a further $753 million for the construction of facilities at the Town at Trilith.

**Figure 42 – Trilith Construction Expenditure by Year Actual FY 2014 – FY 2022, and Anticipated FY 2023 – FY 2027 ($ million)**

Source: Trilith Studios (2023) Note: analysis based on construction investment only

### 6.1.3. Summary of Economic Impact Results

The construction of both the studios and the wider town has stimulated a significant economic impact.

The results presented in this section are the impact that construction at Trilith Studios and associated construction of the Town at Trilith has generated and is forecasted to generate between FY 2014 and FY 2027. SPI received detailed construction expenditure data from Trilith and utilized the same I-O method utilizing IMPLAN but focusing on Fayette County impacts only. Note that all results are in 2023 prices.

Between FY 2014 and FY 2022, Trilith-related construction has contributed $881 million in economic output. This includes $605 million in direct output, $154 million in indirect output, and $122 million in induced output (Figure 43). It is anticipated over the next five years (FY 2023 – FY 2027), the studio will generate an additional $2.91 billion in economic output from planned construction work at the studio itself and in the wider town.

GVA is a key measure of the additional economic value created by an activity. Broadly, it is the difference between gross output and the value of intermediate input and is aligned to the concept of GDP. In terms of GVA, construction at Trilith (studio and town) contributed $475 million between FY 2014 and FY 2022 (Figure 44). This is broken down into $333 million of direct GVA, $76 million in indirect, and $67 million in induced GVA. Between FY 2023 and FY 2027, Trilith construction activity is projected to support $1.57 billion in GVA. Between FY 2014
and FY 2022, Trilith-related construction generated a total of $371 million in labor income, split between $295 million in direct income, $45 million and $31 million in indirect and induced income, respectively (Figure 45). Labor income is forecasted to increase substantially over the next five years (FY 2023 and FY 2027), reaching a total forecasted $1.24 billion.

In FY 2022, construction at Trilith studio and town supported 1,500 jobs (Figure 46). This includes those directly employed in construction, the construction supply chain, and employment supported by construction workers (and those working in the supply chain) spending their wages in the local economy. With the sharp uplift in construction, which is planned in the coming years, the jobs supported by Trilith construction are set to reach a peak of 8,600 jobs in FY 2025.
6.1.4. Wider Impacts

Trilith Studios has demonstrated a substantial commitment to community benefits, amounting to a total investment of $27.4 million since 2013.

Between 2013 and 2022, the ‘Reel People Care Gala’ contributed $13.5 million towards charity events. Established in 2013 by Pinewood Atlanta Studios and now run by Trilith, the Gala hosts local Fayette County charities to raise funds for their respective causes. In 2023, the Trilith Foundation invested $2.3 million in enrichment projects, and the Trilith Institute designated $2 million for film training. The Forest School received an investment of $8 million from 2018 to 2023, targeted towards K-12 education.

Infrastructure improvement saw two roundabouts constructed in 2017, one at Sandy Creek Road at Veterans Parkway Crossroads, costing $430,000, and the other at Veterans Pkwy at Trilith Main Gate Entrance & Town Entrance, amounting to $550,000. From 2016 to date, charity contributions, including annual galas, local charities, and event sponsorships, have amounted to $466,000. Additionally, community events, such as movie screenings and parades, have been sponsored with an investment of $83,500, and community giving initiatives, which encompass chamber contributions and local charity donations, have received $147,600 since 2016.
Case Study: Cinelease Studios – Three Ring

6.2.1. Introduction

Operational since 2020, Cinelease Studios – Three Ring has undergone a significant expansion to deliver state-of-the-art soundstages and studio facilities to productions shooting in Georgia.

Cinelease Studios – Three Ring is located in Covington, in Newton County. The development of Cinelease Studios – Three Ring was announced in 2017, with construction beginning in October 2019. Three Ring opened in 2020 as a purpose-built film and television campus.

Today, Cinelease Studios – Three Ring sits on 90 developed acres with over 250,000 square feet of soundstage space after the recent completion of its $144 million expansion. The site also has 116,000 square feet of production offices and support space, 132,000 square feet of mill/workshop space, and an over seven-acre graded backlot pad. In addition, Cinelease – a national film rental and studio management company – also provides set lighting and grip rental and a full suite of studio management services on-site. A division of Herc Entertainment Services is also located on-site and provides heavy equipment rentals to productions. Notable productions have included the feature film The Tomorrow War (2021) and the television series The First Lady (2022), P-Valley Season 2 (2022), and Dancing with Myself (2022).

Cinelease Studios – Three Ring has demonstrated a consistent trajectory of growth and development since its inception. Since it first became operational in 2020, the studio has been leased at 100% capacity (as of publishing date), and clients have included Lionsgate, Paramount Pictures, and Skydance Media. Originally encompassing 230,000 square feet across six soundstages, three mill spaces, 12 office bungalows, and a comprehensive backlot, the studio’s success led to the announcement of an ambitious $144 million expansion.

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88 Welcome Brochure. Cinelease Studios. Accessible at: https://issuu.com/cineleasestudios/docs/cinelease_studios_welcome_brochure?fr=sYmUxMzYwMTMzNjQ
89 Cinelease Studios- Three Ring Breaks Ground on $144 million Studio Expansion. Cinelease Studios, 23rd March 2022. Accessible at: https://cineleasestudios.com/cinelease-studios-three-ring-breaks-ground-on-144-million-studio-expansion/
in 2022. The expansion added a further 300,000 square feet of production space, including 144,000 square feet for eight new soundstages and 20,000 square feet of support space. This recent expansion was a joint venture between Atlanta-based real estate firm Woodvale LLC and Chicago-based Timberhill Group.\footnote{Woodvale, Timber Hill Secure Financing for Movie Production Campus Expansion in Covington, Georgia. Rebusiness Online, 2\textsuperscript{nd} December 2021. Accessible at: \url{https://rebusinessonline.com/woodvale-timber-hill-secure-financing-for-movie-production-campus-expansion-in-covington-georgia/}}

This expansion, completed in 2023, underscores the studio's unwavering commitment to fortifying its position in Georgia's film and television production landscape, promising further economic contributions and job opportunities in the region.

\begin{figure}[h]
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\caption{Cinelease Studios – Three Ring, Covington. Image credit: Cinelease Studios – Three Ring}
\end{figure}

\section*{6.2.2. Construction Activity}

Cinelease Studios – Three Ring invested $162 million in studio construction between FY 2018 and FY 2022. There is a further $25 million planned for FY 2023 and FY 2024. FY 2021 was the highest construction year thus far, when $91 million was spent.
6.2.3. Summary of Economic Impact Results

The construction of Cinelease – Three Ring has stimulated a significant economic impact. Between FY 2018 and FY 2024, the construction activity alone is estimated to support $250 million in output and $115 million in GVA. This section only models the impact of construction, but the ongoing production activity also drives sustainable jobs and opportunities for the area.

The results presented in this section are the impacts of construction at Cinelease Studios – Three Ring that were generated between FY 2018 to FY 2022 and forecast between FY 2023 and FY 2024. SPI modeled the impact from construction expenditure data and utilized the same I-O method utilizing IMPLAN but focusing on Newton County impacts only. Note that all results are in 2023 prices.

Construction spending at Cinelease Studios – Three Ring between FY 2018 and FY 2022 supported $162 million in direct output, $28 million in the supply chain, and $26 million resulting from subsequent wage effects in Newton County. A further $25 million direct output is anticipated in FY 2023 and FY 2024 associated with construction expenditure in that year, and a further $4 million is anticipated to be generated within the supply chain (indirect), accompanied by $4 million resulting from wage effects (induced).

Regarding GVA, construction at Cinelease Studios – Three Ring contributed $99 million to Newton County between FY 2014 and FY 2022. This is broken down into $72 million of direct GVA, $13 million in indirect, and $13 million in induced GVA. Between FY 2023 and FY 2024, the studio is projected to produce a further $15 million in total GVA.

In FY 2022, the construction of Cinelease Studios – Three Ring supported 460 jobs.91 This includes those directly employed in construction, the construction supply chain, and employment supported by construction workers (and those working in the supply chain)

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91 Jobs numbers in this section are rounded to the nearest 10.
spending their wages in the local economy. Jobs supported by construction are set to reduce in the coming years as the construction investment falls. The number of production-related jobs has not been modeled but will likely grow as new studio spaces come onstream.

**Figure 48 – Output Associated with the Construction of Cinelease Studios – Three Ring, Actual FY 2014 – FY 2022, and Anticipated FY 2023 – FY 2027 ($ million)**

**Figure 49 – GVA Associated with the Construction of Cinelease Studios – Three Ring, Actual FY 2014 – FY 2022, and Anticipated FY 2023 – FY 2027 ($ million)**

Source: SPI analysis (2023) Note: analysis based on construction investment only

Source: SPI analysis (2023) Note: analysis based on construction investment only
6.2.4. Wider Impacts

Cinelease Studios – Three Ring has demonstrated a commitment to the Covington Community. Cinelease Studios – Three Ring notably invested $2.3 million in funding for the Georgia Department of Transportation Expansion project for public road improvement. This project was to improve local roadways to ensure better transportation flow and accessibility. Furthermore, between 2019 and 2023, Cinelease Studio – Three Ring contributed $125,000 to charitable activities.
Part V: Micro and Local Impacts

Black Panther: Wakanda Forever (2022)
Image credit: Marvel Studios
7. MICRO AND LOCAL IMPACTS

7.1. Overview

Film and television production is a manufacturing process that requires a range of inputs, including many workers – varying in creative, technical, logistical, and support roles – as well as equipment, facilities, infrastructure, and services. While a portion of a production’s expenditure is directed towards screen production-specific vendors, significant spending is also directed into other areas of the economy, such as real estate and hospitality services, that do not solely service the screen production industry.

To model this impact, SPI worked with two productions – a high-budget television series and a high-budget feature film – that had filmed in Georgia and accessed the state’s incentive. The expenditure of the projects was analyzed in detail and categorized according to several business sectors that typically supply goods and services to productions. Because of the confidentiality of the analyzed data, no identifying elements beyond the budget level have been included for either production.

The ripple and vendor heatmap analysis is primarily on below-the-line production expenditure to exclude the effect of payments to major creative talent that could imbalance the analysis. Expenditure can significantly impact the general economy outside of the screen sector in areas such as safety and security, hospitality, transport, and health and medical provision. While the ripple analysis undertaken in this area analyzes the benefit on such sectors, the overall impact is likely to be higher than modeled as there are often screen sector-specific service providers in each area, which will be counted within the screen sector.

In addition, the expenditure of each production was also analyzed by where the spending had occurred in Georgia. Vendor zip codes mapped vendor spending patterns for the two productions in these locations.

Lastly, a third analysis was conducted on the impact on the workforce from the two productions. This was undertaken through an analysis of the detailed earnings report and payroll information of the production to identify characteristics of the production’s workers, including where in Georgia they reside.

7.2. Ripple Analysis

To understand the spread of economic impact to other sectors of the economy, a project’s expenditure is analyzed and categorized according to whether it is screen specific spending or non-screen specific spending. If designated to the non-screen specific category, the spending detail is reviewed and then allocated to business sectors, predominantly in the state, that supply goods and services to productions.

The screen specific category indicates the proportion of a production’s spending that goes to the wages of the crew and to companies supplying goods and services that exclusively work in the film and television production sector, such as equipment rental, special effects, make-up, and set builders.

The vendors included in this category do not participate in other sectors of the economy and, therefore, do not contribute to the ripple effect. From other similar analyses undertaken by

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92 Above-the-line and below-the-line relate to film and television production workforce and the different types and seniority of roles across talent, cast, and crew. Above-the-line refers to key talent, including directors, writers, and actors, whereas below-the-line refers to other crew, for example, in technical production roles.

93 Expenditure related to the provision of accommodation, travel, and meals for above-the-line talent are included within the ripple analysis.

94 For a longer description of the ripple analysis, see Appendix Four – The Ripple Effect Analysis.
SPI, this portion of expenditure usually amounts to between 25% and 45% of the below-the-line budget.

The remaining expenditure is included in the non-screen specific category. This is the portion of the budget spent on services and supplies from individuals or companies that supply a variety of sectors in addition to screen production. Within the ripple analysis, this spending is designated to its associated business sector. From other similar analyses undertaken by SPI, between 55% and 75% of a production’s below-the-line spend will typically occur in these non-screen specific sectors. This means that if a feature film or television series has $20 million in below-the-line expenditure, between $11 million and $15 million of that spending would impact non-screen specific sectors of the economy.

The business sectors included in the definition of non-screen specific are detailed below in Figure 52.

**Figure 52 – Ripple Analysis Division of Screen and Non-screen Specific Business Sectors**

![Circle diagram showing division of screen production-specific and non-screen production-specific sectors.](source: SPI analysis (2023))

7.2.1. **Production One: High-budget Feature Film**

Production one is a feature film with a high budget. Because of the confidentiality of the data that was analyzed, no identifying elements beyond this description of the budget level have been included.

Analysis of this production showed that, in total, 33.2% of total below-the-line spend was retained in the screen sector – i.e., to individuals and businesses who only work in screen production. This means that nearly 67% of the production’s spend flowed to a wide range of other sectors in Georgia.

Due to confidentiality, the budget of this production cannot be disclosed. However, using the example in section 7.2 of a film production with $20 million in below-the-line expenditure, it can be estimated that a production of this type would spend approximately $13.4 million in non-screen specific business sectors in Georgia.
Figure 53 – Ripple Analysis of a High-budget Feature Film in Georgia

33.2% Screen Sector Specific Expenditure

66.8% Other Sectors Expenditure

Percentages based on below-the-line expenditure

Source: SPI analysis (2023). Totals may not sum to 100% due to rounding
**Miscellaneous Local Labor (8.4%)** is one of the highest portions of spending in outside of the screen specific sector for this production. This category includes all labor that could not be specifically allocated to another sector (such as builders, who would be included in Construction expenditure; hotel staff, who would be included in Hospitality and Catering; or non-screen specific hair and make-up artists, who would be included in Fashion and Beauty). This proportion of spend would typically be directed to a range of businesses across the key crew departments (including but not limited to Production, Camera, Grips, Lighting, Props, Wardrobe, and Unit). This high level of spend on local labor is a supportive indicator of the impact a production can have on local employment, beyond the hiring of cast and crew.

Often, with higher-budget feature films, there can be a wide range of incoming cast and crew. This can result in additional spending being directed towards business sectors that work to facilitate this incoming workforce. This is demonstrated through the higher portions of non-screen specific spending being directed towards **Travel and Transport (8.8%)** and **Hospitality and Catering (5.1%)**.

This production’s **Travel and Transport** portion predominantly includes transport spend.95 Often, the vehicles required for equipment, set construction, and props, for example, will be sourced from a screen specific vendor. However, cast and crew transport, smaller-to medium-sized vehicles for catering and wardrobe, and some specialized picture vehicles will be sourced by non-screen specific vendors that supply vehicle rentals for multiple business sectors. A high-budget production typically involves two to five rental companies to service the entire production. A portion of this spending could also be allocated to individual contractors, a wide range of private hire taxi services, or other alternative transport. A higher percentage in Travel and Transport often has multiple areas of impact. As an example, the total expenditure allocated to one crew member’s transport would include the car’s rental (usually from a local car rental franchise), the fuel for that vehicle for the duration of the production (often this can also include part of pre-production and/or post-production), and car cleaning (usually provided by local service providers).

**Hospitality and Catering** includes services related to accommodating and feeding the substantial numbers of talent and crew employed by a production.96 Hospitality may include accommodation such as local hotels, bed & breakfasts, part-time apartment rentals, and any additional events required for press or marketing. A feature film of this size would typically use three to five hotels or accommodation providers, often with up to 60% of the crew being housed, ranging in provisions and requirements across executives, talent, and crew. Crew may require housing for a number of reasons, including being from out-of-state, working in a city or region different from their home residence, working call times that require accommodation due to early or late hours, or because the production is shooting in a remote location that complicates daily transport. Catering often indicates significant non-screen specific impact as it captures all non-production-based and off-set meals. This can be difficult to quantify across productions, but with mid- to high-budget feature films, there will be significant use of local restaurants, cafes, and grocery stores—in addition to on-set catering.

**Music and Performing Arts (7.7%)** is one of the sectors with the highest portions of the non-screen specific spend in this production. It can be challenging to differentiate services that fall between this category and screen specific as there can be a lot of crossover. Often, acting roles are filled with individuals who move across different creative sectors, including between

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95 The GDOR imposes limits on travel and transport as a qualifying expenditure. For example, rental cars are limited to one vehicle per personnel.

96 The GDOR imposes limits on housing as a qualifying expenditure. Up to the amount set forth by the United States General Services Administration. Any excess must be included in the loanout company’s or the person’s income in order to be qualified. For more information, see the List of Film Tax Expenditure. GDOR, 15th March 2023. Accessible at: https://dor.georgia.gov/list-film-tax-credit-expenditures

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theatre, musicals, and the visual arts. A benefit of a production being based in an area with an established cultural and creative sector – such as Atlanta – is that roles outside of the principal cast and ensemble may be filled by actors and creative talent that are not exclusively film and television performers. Although most of this spending would be for individual contractors, it would be usual for this scale of production to use more than one creative casting agency.

A higher Location Fees and Real Estate (6.6%) percentage indicates a production completing a notable portion of shooting at locations outside of a studio, soundstage, or set. Location Fees broadly refer to the administration and facilitation costs associated with shooting in a specific location. This would include parking permit fees administered by a municipal body or the private organization that owns or manages the location. In addition, this portion of expenditure would include any entrance fees or tickets associated with viewing and/or visiting a location prior to filming as part of pre-production. Real Estate captures the expenditure spent hiring locations that serve other purposes outside of production, such as historic houses, nature reserves, and warehouses. Typically, with mid- to high-budget features, up to 20 locations of various sizes may be used, which also involves engaging the associated staff, facilities, and service providers.

A higher Location Fees and Real Estate portion also relates to a higher proportion of spending directed to Construction (13.1%) and Power and Utilities (4.1%) as those services would be through providers associated with the locations or on-site set-up. These activities require vendors specifically suited to the location or service needed, and many hire venues have preferred suppliers for these services, such as the provision of generators or portable toilet facilities. Furthermore, it can also be a more cost-effective choice for a production to use a local supplier that would provide services to a range of consumers outside the sector. This is particularly relevant to construction supplies, such as timber, plaster, and paint. For example, in many cases, larger scale productions with specific set-up and building requirements will tap into local timber supply chains, for example, or use two to three specialist paint suppliers along with larger franchise supply chains.

With feature film productions such as this, it is not uncommon for Business Support (1.4%) and Digital Services (2.3%) to be a lower portion of the spending as these services and resources are usually for production management and administration purposes. These are often sourced from screen specific vendors located at more permanent production bases such as studios. Digital Services can also include the use of technology required to process dailies (the download of that day’s footage), which will most often be sourced from a local technical service provider.

Training and Education and Finance, Legal, and Company Costs (which are business sectors considered in the Ripple Analysis process) have no allocated expenditure for this production as these positions and costs would fall under the relevant non-screen specific sectors or be provided by screen specific entities.

7.2.2. Production Two: High-budget Television Series

Analysis of this series production showed that, in total, 39.1% of total below-the-line spend was retained in the screen sector – i.e., to individuals and businesses who only work in screen production. This means that nearly 61% of the production’s spend flowed to a wide range of other sectors in Georgia.

Due to confidentiality, the budget of this production cannot be disclosed. However, using the example of a television series production with $20 million in below-the-line expenditure, it can be estimated that a production of this type could spend approximately $12.2 million in non-screen specific business sectors in Georgia.
Figure 54 – Ripple Analysis of a High-budget Drama Series in Georgia

39.1% Screen Sector Specific Expenditure
Percentages based on below-the-line expenditure

60.9% Other Sectors Expenditure
Percentages based on below-the-line expenditure

Source: SPI analysis (2023). Totals may not sum to 100% due to rounding.
Hospitality and Catering (4.4%) includes services related to accommodating and feeding the substantial numbers of talent and crew employed by a production. Hospitality may include accommodation such as hotels, local bed and breakfasts, or part-time apartment rentals, as well as any additional events that are required for press or marketing. Due to the longer production timelines of television series, between 40% to 60% of the cast and crew could require accommodation, resulting in up to five various hotel and accommodation providers being used across that timeframe. Catering often indicates significant non-production specific impact as it captures all non-production based and off-set meals – which usually involve local restaurants, cafes, and grocery stores – in addition to on-set catering.

The high portion of spending being allocated to Location Fees and Real Estate (10.2%) is indicative of a production completing a significant portion of shooting at existing locations that serve other purposes outside of the production (i.e., non-soundstages), such as historic houses, nature reserves, and warehouses. Location Fees capture administration and facilitation costs that are associated with shooting in a specific non-studio location. This would include permitting fees administered by a municipal body, the managing organization, such as a national or historical agency, or the private organization that owns or manages the location. This portion of expenditure would also include costs associated with the location recces, which take place during pre-production and involve location scouts or crew members visiting and assessing the suitability of a location prior to any rental agreements or contracts. Thus, Location Fees could also include any entrance fees and ticketing costs.

With television series and other productions that have a longer production run time, the Travel and Transport (10.5%) portion predominantly includes transport spend. Often, the vehicles required for equipment, set construction, and props, for example, will be sourced from a screen specific vendor. However, cast and crew transport, smaller- to medium-sized vehicles for catering, wardrobe, and some specialized picture vehicles will be sourced by non-screen specific vendors that supply vehicle rentals for multiple business sectors. A higher percentage in Travel and Transport often has multiple strains of impact. As an example, the total expenditure allocated to one crew member's transport would include the car rental (usually from a local car rental franchise), the fuel for that vehicle for the duration of the production (often this can also include part of pre-production and/or post-production), and car cleaning (usually provided by local service providers). On a high-budget television series, these rentals, as well as the subsequent spending associated with the rental, could be across three to six months (or even longer) and can often be applicable to up to 40% of the cast and crew, as that accounts for heads of departments, executives, and key cast members who are brought in for the production from outside of the state or require an alternative vehicle for the production – often due to hard-to-reach locations or to carry additional resources (such as smaller equipment, wardrobe or administration stationery).

A higher Location Fees and Real Estate portion also directly relates to a notable portion of spending directed to Construction (5.6%), as services and resources associated with construction would likely be through providers associated with the locations or on-site set-up. This impact often occurs through the acquisition of materials, such as wood for stage and set extensions, as well as the labor involved in sourcing materials and the assembly of the construction work. This is particularly relevant to construction supplies, such as timber, plaster, and paint. For example, in many cases, larger-scale productions with specific set-up and building requirements will tap into local supply chains of timber. The skills and resources required for this work will typically be from local specialists who work across multiple business sectors, in addition to the screen sector.

Real Estate captures the expenditure allocated to the hiring of locations that are not primarily filming locations. This can involve renting private houses that tenants would otherwise occupy or rent for accommodation purposes. Typically, projects shooting outside of a studio for a
portion of the production may require between 10 to 20 locations – some for one-off scenes, and others would be contracted for the duration of the series filming time.

The spread of percentage across Safety and Security (9.6%) is notably high, primarily due to the high amount of on-location and out-of-studio shooting for this production. When productions shoot on location, they typically hire a local security company, local off-duty police and EMS, or use the location’s existing security provider. In addition, productions using ‘green areas’ or designated nature parks and reserves may require an environmental safety officer through the location permit. This would normally entail between one to three individual contractors, depending on the scale of nature-based filming as well as the sensitivity of the area.

Miscellaneous Local Labor (5.1%) is a supportive indicator of the impact a production can have on local employment, beyond hiring cast and crew. This category includes all labor that could not be specifically allocated to another sector (such as builders, who would be included in Construction expenditure; hotel staff, who would be included in Hospitality and Catering; or non-screen specific hair and make-up artists, who would be included in Fashion and Beauty).

It can be challenging to differentiate services that fall between Music and Performing Arts (3.6%) and screen specific as there can be a number of crossovers. Often, acting roles are filled with individuals who move across different creative sectors, including between theater, musicals, and the visual arts. A benefit of a production being based in an area with an established cultural and creative sector – such as Atlanta – is that roles outside of the principal cast and ensemble may be filled by actors and creative talent that are not exclusively film and television performers. Although most of this spending would be for individual contractors, it would be usual for this production scale to use more than one creative casting agency.

The majority of Digital Services (3.4%) costs will be allocated to the screen specific category as the services within this category are usually for production management and administration purposes. However, there can be a crossover of skills between this business sector and other non-screen digital industries, particularly the video games sector. The costs of employing the people and suppliers in those parallel industries have been allocated to this category.

Productions use general business equipment, services, and supplies over the course of a production’s lifespan. In the case of the television series analyzed for this Study, a portion of Business Support (2.8%) – for example, the purchase of office equipment or use of printing and copying services – was sourced via non-screen specific suppliers. The purchase or rental of miscellaneous items, such as storage containers and marquees, will also typically be sourced via local non-screen specific suppliers.

Equally, Fashion and Beauty (2.2%) will predominantly hire workers, services, and supplies from screen specific vendors. Notable exceptions include cleaning supplies and services such as dry cleaning, for example, where between one to four local non-screen specific vendors may be used.

A low percentage for Finance, Legal and Company Costs (0.3%), and Health and Medical (0.2%) does not reflect a lack of spend in these areas, rather it may indicate that the majority of these goods and services were likely provided by screen specific providers.

No Training and Education expenditure has been captured in this ripple analysis as internships, apprenticeships, and trainee schemes that may occur in construction, hair styling, and financial administration, for instance, would fall under the relevant non-screen specific sectors or be provided by screen specific entities.

7.3. Impacts of Production Expenditure by Geography

The vendor heat map analysis, outlined in this section, goes beyond evaluating impacts on vendor groups and extends to analyzing the production expenditure incurred by the
production company during its time in a specific region. This analysis provides valuable insights into the distribution of costs across different areas.

To create the vendor heat maps, the production company gathers data on vendor spending, which encompasses various expense categories such as costumes, set design, transportation, and any other relevant costs incurred during production. These data are typically obtained from financial records and invoices provided by vendors. Additionally, zip code data that correlates with the spending is collected to aid in the mapping process. The zip codes help to geographically map and visualize the distribution of expenditures across different areas within Georgia.

The spend data is then mapped onto a visual representation of the region. In this case, the maps are divided into zip codes, and the intensity of color shading represents the level of expenditure in each zip code. Darker colors indicate higher spend, while lighter colors indicate lower spend.

7.3.1. Production One: High-budget Feature Film

The maps below were created for the same confidential feature film production that was filmed in Georgia. The data includes the vendors that were engaged with, along with how much spending was incurred with each vendor.

In assessing the vendor landscape within Georgia’s dynamic film and television production sector, this production engaged with a total of 540 vendors across Georgia. As demonstrated in Figure 55, these vendors were largely – though not exclusively – concentrated in two of Georgia’s production hubs, Atlanta and Savannah.

The state of Georgia’s robust incentives for film and television production have played a pivotal role in attracting major productions to the state, fostering an environment where vendors are inclined to establish a strong presence. Atlanta is at the center of the state’s production activity. Metro Atlanta boasts an extensive infrastructure comprising state-of-the-art film studios, post-production facilities, and a highly skilled and experienced workforce – all key components for the seamless execution of screen projects.
The map in Figure 56 demonstrates the significant spread of spending among vendors in Metro Atlanta.

The prominence of Atlanta as a destination for screen production vendors can be attributed to several strategic factors. Atlanta's geographical diversity offers an extensive range of filming locations, encompassing both urban and rural settings, rendering it an enticing canvas for a wide spectrum of visual narratives.

Moreover, Atlanta's thriving cultural scene, logistical convenience, and accessibility further enhance its appeal as a primary base of operations for vendors catering to the burgeoning screen production industry. In this analysis, it becomes evident that Atlanta's central role within Georgia's film and television production ecosystem has led to many vendors strategically positioning themselves in and around the city, aligning with the evolving needs of the industry.
Figure 56 – Vendor Heat Map of a High-budget Feature Film in Georgia – Atlanta Vendor Spending

Source: SPI analysis (2023)

Figure 57 shows this production also exhibited significant expenditure within the Lower Coastal Plain of Georgia, with spending occurring predominantly in Savannah and the surrounding areas of Glennville, Hinesville, and Richmond Hill. This strategic allocation of resources underscores the deliberate choice made by the production team to harness the unique assets and attributes of this region.

Savannah, with its historic charm, cobblestone streets, and picturesque waterfront, has long been a favorite backdrop for filmmakers seeking a distinctive setting for their narratives. The city offers architectural diversity for film and television production, from grand mansions to urban neighborhoods. Moreover, the region’s proximity to the Atlantic Ocean provides a diverse range of natural landscapes, from pristine beaches to lush marshes, further enhancing its appeal as a cinematic destination.

Savannah offers its own production incentive for feature films and television series that meet specific requirements, including at least 50% of shooting days occurring within 60 miles of the City Hall of Savannah. A bonus incentive is also available for productions that hire at least 50% of their crew from the same 60-mile radius.

The spread of the vendor spending into surrounding areas such as Glennville, Hinesville, and Richmond Hill is evidence of the incentive’s effectiveness in establishing a production hub in the Lower Coastal Plain.
This strategic allocation of expenditure not only highlights the production's utilization of the Lower Coastal Plain's assets but also underscores the economic benefits brought to these communities by creating jobs and stimulating local businesses.

**Figure 57 – Vendor Heat Map of a High-budget Feature Film in Georgia, Lower Coastal Plain Vendor Spending**

In assessing the vendor landscape within Georgia's dynamic film and television production sector, this production engaged with a total of 504 vendors across Georgia, with most of them based in Atlanta.

The state-level spread of expenditure, as shown in Figure 58, shows a consistent pattern of concentration around Metro Atlanta, with a smaller proportion of the spending reaching other areas.

The state of Georgia's robust incentives for film and television production have played a pivotal role in attracting major projects to the state, fostering an environment where vendors are inclined to establish a strong presence. Atlanta is at the center of the state's production activity. Both the city and greater metro area boast an extensive infrastructure comprising

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**7.3.2. Production Two: High-budget Television Series**

The maps in this section were created for a confidential television series that was filmed in Georgia. The data includes the vendors that were engaged with, along with how much spending was incurred with each vendor.

In assessing the vendor landscape within Georgia's dynamic film and television production sector, this production engaged with a total of 504 vendors across Georgia, with most of them based in Atlanta.

The state-level spread of expenditure, as shown in Figure 58, shows a consistent pattern of concentration around Metro Atlanta, with a smaller proportion of the spending reaching other areas.

The state of Georgia's robust incentives for film and television production have played a pivotal role in attracting major projects to the state, fostering an environment where vendors are inclined to establish a strong presence. Atlanta is at the center of the state's production activity. Both the city and greater metro area boast an extensive infrastructure comprising
Economic impact of the Georgia Entertainment Industry Tax Credit

state-of-the-art film studios, post-production facilities, and a highly skilled and experienced workforce – all key components for the seamless execution of screen projects.

**Figure 58 – Vendor Heat Map for a High-budget Drama Series in Georgia, Overall Vendor Spending**

![Vendor Heat Map for a High-budget Drama Series in Georgia, Overall Vendor Spending](image)

Source: SPI analysis (2023)

Figure 59 demonstrates the spread of expenditure across Metro Atlanta.

The prominence of Atlanta as a destination for film and television production vendors can be attributed to several strategic factors. Atlanta's dynamic cultural scene, logistical efficiency, and unmatched accessibility amplify its status as the primary operational base for vendors serving the thriving and ever-evolving screen production community.

Furthermore, Atlanta's diverse geography, encompassing urban landscapes and picturesque rural settings, provides a versatile backdrop conducive to a wide range of visual narratives. This geographic appeal makes it a preferred destination for film and television production and the vendors supporting it.
7.4. Cast and Crew Analysis

SPI analyzed the detailed earnings report and payroll information of the given production to identify characteristics of above-the-line and below-the-line workers of a high-budget feature film shot in Georgia. This should not be considered representative of the entire Georgia film and television production industry but rather a case study indicating the impact that an individual production can have.

7.4.1. Production One: High-budget Feature Film

Workers active on the high-budget feature film production are resident in 42 different Georgian counties. Most of them reside in the 29-county Metro Atlanta Metropolitan Statistical Area (MSA), which, as the home to 56% of Georgia residents, is also the most densely populated area of the state. However, as Figure 60 shows, workers on the production were also residents of counties in the state outside of Metro Atlanta. A secondary cluster of workers – approximately 9% of the Georgia-resident workers on this production – were in the Savannah area. These patterns reflect findings from the vendor heat map presented above.
Figure 60 – Cast and Crew Analysis of a High-budget Feature Film in Georgia, by Georgia County of Residence

Source: SPI analysis (2023)

7.4.2. Production Two: High-budget Television Series

Most of the Georgia-resident workers on this high-budget television series production were in Metro Atlanta. However, as Figure 61 shows, workers on the production were also residents of counties in the state outside of Metro Atlanta. This pattern generally reflects findings from the vendor heat map presented above. The production involved workers from 47 different Georgian counties.
Figure 61 – Cast and Crew Analysis of a High-budget Drama Series in Georgia, by County of Residence

Source: SPI analysis (2023)
8. SCREEN TOURISM

Screen content is a proven motivator for tourists to visit an area or location, and can also have significant effects on marketing, brand building, and other strategic impacts for a location.

This section analyzes the role that film and television productions play in driving tourists to Georgia.

8.1. Overview and Summary of Impact

As a major global film and television production hub, Georgia regularly hosts the filming of major projects such as *The Walking Dead* (2010-2022), *Stranger Things* (2016-present), and *The Vampire Diaries* (2009-2017).

SPI estimates that, in 2022, Georgia welcomed at least 851,757 additional visitors who were drawn to the area solely because of film and television series produced in the state. These visitors spent a total of $172 million in Georgia. The methodology is outlined in section 8.2.2.

8.2. Estimating Screen Tourism Expenditure in Georgia

8.2.1. Previous Screen Tourism Studies in Georgia

The volume and expenditure of screen tourists and the economic impact of these tourists has been estimated at least twice by prior studies.

The executive summary of *Economic Contributions of the Georgia Film and Television Industry*, produced in 2011 by Meyers Norris Penny on behalf of the Motion Picture Association (MPA), estimated employment, impacts on state and local taxes, and Gross State Product (GSP) and used it to calculate the economic impact of the screen industry in Georgia. The executive summary reports that screen tourism in 2010 generated $78 million in GSP and employed 1,968 FTEs, accounting for less than 1% of tourism activity. The executive summary does not disclose the method used to estimate the economic impact of screen tourism and the full report with methodology was not released. For this reason, this study is not replicable.

The 2020 audit on the *Impact of the Georgia Film Tax Credit*, produced by the Performance Audit Division of the Georgia Department of Audits and Accounts ("GDAA"), estimated the expenditure of screen tourists in Georgia and modeled direct output, labor income, and employment. The study reports that, in 2016, film tourism had a total economic impact of $291.8 million and that film-motivated visitors spent $146 million in Georgia in 2016, supporting an additional $73.7 million in indirect output and $72.4 million in induced output. The tourism activity resulted in 2,600 direct jobs and supported an additional 500 indirect jobs and 500 induced jobs. The methodology for these calculations is explained relatively clearly, despite some minor gaps in the description, and it is based on a few assumptions. To isolate the amount of visitor expenditure that is attributable to those who travel to or within Georgia to visit film locations and heritage, data around travel motivation are central to this calculation. While GDEcD collects some information on key activities undertaken by visitors and their personal interests, the agency does not collect data on their motivation for travel. For this reason, the study used a 2018 publication by Destination Analysts that found that 7.3% of US travelers considered film a factor when selecting their travel destination. GDAA applied the same percentage to overseas visitors as well.

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97 *Economic Contributions of the Georgia Film and Television Industry*. Meyers Norris Penny LLP for the Motion Picture Association of America, 2011


99 *The State of the American Traveler*, Destinations Editions. Destination Analysts, 2018
SPI does not feel confident in using this same percentage assumption for two reasons. First, the percentage reported in the Destination Analysis research refers to travelers who use film to “find destination ideas and inspiration” when selecting their travel destination. This does not mean that film was the primary motivation for their travel. Second, this percentage is drawn from a wider US sample and, therefore, does not necessarily reflect the characteristics of Georgia’s film heritage. With this, such a percentage is likely to vary greatly based on the location within the US. Applying that flat percentage to the entire state would reduce the robustness of the calculation.

For this reason, in the context of this study, SPI replicated the GDAA methodology while considering it an estimate.

8.2.2. Methodology

As described above, robust quantitative assessments of screen tourism present significant challenges since such studies need to precisely identify the number of visitors who decided to travel to a specific location solely – or mainly – because of its exposure in one or multiple screen productions. Since reliable motivational travel data does not exist in Georgia, and primary data collection in this area was outside of the scope of this Study, it is challenging to measure full economic impacts. For this reason, SPI has not calculated the full economic impact of Georgia screen tourism and only focuses on the number of screen tourists in Georgia and their related expenditures.

As also highlighted by the GDAA’s 2020 audit on the Georgia Entertainment Industry Tax Credit, it should also be noted that SPI calculations estimate the level of screen tourism in Georgia in the 2022 calendar year and not the tourism generated by projects receiving the credit in this or any other specific year. Therefore, the impact in 2022 could be considered an impact derived from the films and series produced in the previous years and not only referring to screen productions in 2022.

The core source for this calculation is Explore Georgia, the tourism division of GDEcD, which regularly produces data on state tourism. Tourists are grouped into three different categories: (i) international visitors; (ii) domestic visitors staying in Georgia overnight; and (iii) domestic visitors visiting the state on a day trip. For the latter two categories, SPI used 2022 data. At the time of writing, data for international visitors were only available for 2021.

It should be noted that the pandemic particularly affected visitor numbers for 2020-2022, which reduced the number of travelers globally. Data from Explore Georgia show that domestic visitors have not particularly been affected by the pandemic, as these increased by 5.5% in 2021 compared to 2019. The same cannot be said for international visitors, which decreased by 75.2% versus 2019. It is, therefore, expected that the 2022 data, once released, will show an increase in international visitors, which might also mean a higher number of screen tourists.

Having established the total number of tourists in Georgia in 2021 using the above data, SPI then applied the following assumptions:

1) **Visitors from within Georgia do not bring any additional value** – i.e., they would have spent their time and resources in the state in any case or even spent it outside of Georgia. For this reason, SPI excluded from the estimation all visitors originating from Georgia (40% of the domestic day trippers and 27% of the domestic overnight visitors).

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101 Due to the pandemic, the US border was closed to most foreign visitors until November 2021, after which entry was allowed if certain COVID-19 vaccine and testing requirements were met.
2) SPI defines screen tourists as those visitors for whom screen content is a main motivation for their visit. For this reason, SPI kept in the calculation only those who mentioned they did some sightseeing visiting for leisure, not those who were visiting for business or for friends and family. This is a conservative assumption, given the possibility that screen tourism may have played a motivational role even within these two latter groups. Information on visitor type was sourced from the Explore Georgia reports on overnight and day visitor profiles for 2022.102

3) Having established a focus on non-state sightseeing visitors, SPI then used GDEcD’s annual domestic visitor profile report from Longwoods International to examine motivation. The organization fields a quarterly survey for domestic visitors to Georgia, with one question being: “Which of the following were of particular interest to you on this trip?”. One of the choices is “Film tourism (Visiting locations and participating in activities related to movies/TV programs you have viewed).” Over the last three years for which GDEcD has data (2020-2022), between 11% and 13% of domestic overnight travelers to Georgia, and between 6% and 9% of day trippers, said that screen tourism is of special interest to them. For the purpose of this Study and given that the exercise is trying to obtain a top-end estimate, SPI assumes that film tourism was a key motivation for their visit and considered them all core additional film tourists. For this calculation, SPI used the data referring to the latest year available (13% for domestic travelers and 9% for day trippers).

4) International visitors represented 2% of all visitors to Georgia in 2021. Considering that Explore Georgia does not have any motivational data on international visitors in the way it does for domestic, SPI assumed they behaved like domestic visitors. We consider this a conservative approach, given that they are less likely to be visiting for the same reasons as domestic tourists.

5) Once the number of film tourists was obtained, SPI multiplied this number by the amount spent per visitor trip, as reported by Explore Georgia.

The calculation generated the following estimates:

Table 6 – Screen Induced Tourism: Visitor Numbers and Expenditure

<table>
<thead>
<tr>
<th></th>
<th>Amount (2022*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of visitors to Georgia per year (domestic and international)</td>
<td>167,257,500</td>
</tr>
<tr>
<td>Number of screen tourists</td>
<td>851,757</td>
</tr>
<tr>
<td>% of total</td>
<td>0.51%</td>
</tr>
<tr>
<td>Total visitor spending</td>
<td>$28,487,000,000</td>
</tr>
<tr>
<td>Spending attributable to screen tourism</td>
<td>$172,549,587</td>
</tr>
<tr>
<td>% of total</td>
<td>0.61%</td>
</tr>
</tbody>
</table>

*Visitor numbers for international tourists (2% of all visitors) were not available for 2022. SPI used the latest figure available (2021). Source: SPI analysis (2023)

As a comparison, GDAA’s 2020 audit on Film Tax Credit reports a spending attributable to screen tourism of $145.7 million. This study, therefore, shows an 18% increase from that year.

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As noted, though, data for international tourists was from 2021, a year impacted by the pandemic. It can be assumed that this is a very conservative estimate.

Comparison with other countries is challenging because of the varying methodologies applied. SPI encourages further primary research to better capture visitors’ motivations and monitor visitor numbers and expenditure more robustly.

8.3. Case Study: Senoia

Senoia is situated in Coweta County, approximately 35 miles south of Atlanta, with a population of just over 5,000, according to the 2020 US Census. Although primarily a residential community, Senoia has garnered significant attention as a filming location for various television shows and films, most notably *The Walking Dead* (2010-2022). Senoia serves as an illustrative case study on the economic impacts of film and television production on a small town, especially screen tourism.

Prior to the production of *The Walking Dead* in 2005, Senoia had five operational businesses. Despite featuring productions such as *Driving Miss Daisy* (1989) and *Fried Green Tomatoes* (1991), Senoia faced challenges in attracting projects due to Georgia’s lack of competitiveness in terms of incentives at the state level. This changed when Georgia enacted the Georgia Entertainment Industry Investment Act in 2005. The first season of *The Walking Dead* was primarily shot in Atlanta – however, due to reported challenges in coordinating the closure of streets and parks, the remainder of the series was shot in Senoia. AMC moved the production to Senoia due to its scenic locations, particularly downtown Senoia and Riverwood Studios, now Raleigh Studios – Atlanta, which AMC purchased in 2017 for $8.25 million.

Aims and Objectives

Senoia has embraced the popularity of film and television productions produced locally and, in turn, capitalized on the economic benefits generated – from production, screen tourism, real estate, and local business development – to rejuvenate the town.

Impact

Senoia has experienced significant transformation since *The Walking Dead* relocated production to the town, particularly regarding the economic revitalization of the local economy and main street. A resident and business owner interviewed for this study reported that before *The Walking Dead* was shot in Senoia, the main street had five businesses, only servicing the local community. Now, driven by the number of tourists and wealth generated by the show,
there are more than 150 businesses, and all properties on the main street are leased. More properties in the town are currently being built, demonstrating the continued level of demand.

Several of these new businesses are directly related to The Walking Dead series, such as The Walking Dead Café, the Woodbury Shoppe (named after the town in the show’s storyline), and restaurants such as Nic & Norman’s (partly owned by The Walking Dead’s Greg Nicotero and Norman Reedus), borne out of the show’s presence in the city and offering an enticing attraction to fans of the television series. Nic & Norman’s has since expanded with restaurants across three other locations in the US. Each location employs approximately 60 people, with an average turnover of $3 million per year just for the restaurant located in Senoia.

Screen tourism in Senoia has been galvanized by the popular series. The main street has added stars to indicate various film and television productions that used the town as a backdrop or were filmed at nearby Riverwood Studios, the studio where The Walking Dead was also shot. A number of themed walking tours focusing on film and television locations used in Senoia are also available.105

"The Walking Dead fans fly in from across the world to see Senoia, and they spend their dollars in Senoia and in Georgia. And while The Walking Dead is the main attraction, other local businesses also benefit, from grocery stores to hotels to small shops and boutiques. It’s driving economic development through film."

- Lee Thomas, Deputy Commissioner, Georgia’s Film, Music and Digital Entertainment Division

8.4. Case Study: Covington

Covington, located approximately 35 miles east of Atlanta, has been long established as a pivotal film and television production hub in Georgia. Benefiting from its scenic downtown, robust production infrastructure such as Cinelease Studios – Three Ring, and close proximity to additional production infrastructure and vendors in Metro Atlanta, the city has been the backdrop for over 160 film productions since 1954, including noteworthy titles such as Dukes of Hazzard (1979-1985), My Cousin Vinny (1991), The Vampire Diaries (2009-2017) and Selma (2014). The popularity of these productions, particularly The Vampire Diaries, has influenced a number of screen tourists to visit the city, resulting in widespread economic benefits for the town.

Covington is a strong example of how film and television have helped the city market itself as a visitor destination, bringing positive economic value to its businesses and communities.

Aims and Objectives

Covington aims to solidify its position as a central film and television production hub, leveraging its scenic downtown and historical involvement in prominent film projects. Supported by both local government and industry partnerships, the city focuses on bolstering screen tourism, which has significantly driven economic growth, enhanced tourist activity, and benefitted local businesses.

105 AMC’s The Walking Dead Brings Surge In Film Tourism to Georgia. The Location Guide, 26th February 2016. Accessible at: https://www.thelocationguide.com/2016/02/amc%E2%80%99s-the-walking-dead-brings-surge-in-film-tourism-to-georgia/
Impact
Covington's transformation into an active commercial hub is largely due to the influence of the film and television production sector. Screen production in Covington has benefitted ancillary businesses in the area. City officials report that restaurants such as Bradley's BBQ, Plain Nuts Catering, and Your Pie saw a tremendous increase in bottom-line revenue while catering for the film crew and cast. Beyond *The Vampire Diaries*, in 2012 alone, Covington and Newton County hosted over 60 films and television productions, which have, in turn, generated $19.71 million in worker income from 1,000 jobs.\(^\text{106}\)

The economic implications of screen tourism in Covington are significant. As highlighted by the Chamber of Commerce, television and film production, primarily driven by *The Vampire Diaries*, accounted for 90% of the town's tourism revenues in 2015. This resulted in an increase in direct tourist spending by $5.49 million, accumulating to $125.60 million in 2015.\(^\text{107}\) By 2022, the town registered 96,383 visitors from 57 countries. This growth in film-related tourism significantly bolstered Covington's hotel-motel tax revenue, yielding an average property tax saving of $200 per resident.\(^\text{108}\) Reflecting the increased tourist interest, average hotel stays in the county have been extended from one or two nights to four nights per visitor.\(^\text{109}\)

Screen tourism has had a positive impact on local Covington businesses. The Mystic Grill restaurant has experienced significant patronage due to its central role in *The Vampire Diaries*. Retailers, including On Location Gifts and The Alley, have successfully capitalized on this growing interest by offering *Vampire Diaries* related merchandise, leading to a surge in sales. Tour operators like Mystic Falls Tours and Main Street Trolleys have also seen a spike in their bookings, providing film-themed experiences that draw consistent tourist interest. In 2011, 19,000 tourists from 46 US states and 38 countries came for *Vampire Diaries* themed tours.\(^\text{110}\) A 2020 economic impact study further quantifies this impact, suggesting that 70% of all tourist visits to Covington can be attributed to film-inspired tourism.\(^\text{111}\)

Furthermore, many visitors travel to Covington to see the local museum, which includes original props from *Vampire Diaries*. The city also reports that thanks to the wealth and popularity of the city as a leisure location, there are no vacancies in the main square – signaling the impact on the city.

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\(^{111}\) *Economic Impact of the Film Industry in Newton County, Georgia*. Tripp Umbach, 25\(^\text{th}\) June 2021
9. WORKFORCE AND TRAINING

9.1. Overview

A thriving film and television production industry generates various employment opportunities, encompassing various skill sets from cinematography to set decoration, construction to electrical, and catering to transport. In encouraging an environment that attracts high-budget productions, jurisdictions can reap the benefits of a thriving screen production industry, which in turn bolsters the economy by creating diverse job opportunities and higher wages.

This section outlines core aspects of workforce and training in Georgia, including the growth of Georgia’s screen production workforce, membership of IATSE Local 479, and the provision of training opportunities across the state.

9.2. Growth in Georgia’s Screen Production Workforce

Underpinned by its incentive system, Georgia is now home to a very strong and well-regarded film and television crew base. However, this was not always the case. In the late 1990s and early 2000s, before the Georgia Entertainment Industry Tax Credit was established, the irregular nature of screen production in the state led many film and television workers to seek employment in different industries – or different states.

Through the success of the tax credit, the state is attracting a regular flow of productions, and the film and television workforce has expanded significantly. As more film and television projects are attracted to Georgia, the demand for skilled workers has risen. Ant-Man (2015) employed 3,579 local crew members, while the fourth season of Netflix’s Stranger Things (2022) hired over 2,000 local crew members for the production as it filmed in and around Atlanta.112

Georgia’s film and television training landscape has gained a reputation for delivering high-quality and industry-relevant training through the renowned GFA and forward-thinking opportunities through other institutes such as SCAD or companies such as Fresh Films. This establishes a talent pipeline of young Georgia residents into Georgia’s expanding film and television production industry, meeting the increased demand for workers.

9.2.1. Membership Growth in IATSE Local 479

Due to the project-based nature of the screen production industry, estimating the size of the workforce can be complicated. However, analysis of union membership provides a valuable proxy for trends in the workforce.

IATSE Local 479 is a union for below-the-line crew from departments such as the art department, construction, set decorating, wardrobe, sound/video, grip and electrical in Georgia and Alabama. IATSE provides portable benefits such as retirement and healthcare to members. An assessment of IATSE Local 479 members’ residential zip codes suggests that 98% of Local 479 members reside in Georgia.

In 2009, there were 719 members of IATSE Local 479.114

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113 Stranger Things Season 4: How Georgia Economy Benefited from Latest Installment of Sci-Fi Series. GDEcD, 13th June 2022. Accessible at: https://www.georgia.org/blog/stranger-things-season-4-how-georgia-economy-benefited-latest-installment-sci-fi-series#:~:text=In%20addition%20to%20hiring%2030,and%20airfare%3A%20%2424.5%20million
According to data from IATSE Local 479, by 2023, there are now just under 7,300 members. As demonstrated in Figure 62, there has been a steady increase in union membership since 2013.

**Figure 62 – Increase in IATSE 479 Members, 2013-2023 (YTD)**

![Graph showing increase in IATSE 479 members from 2013 to 2023 (YTD)](image)

Source: IATSE Local 479 (2023)

Figure 63 below indicates the location of Local 479 members based on their residential zip code. Each red segment represents a Georgia zip code with at least one Local 479 member. Further analysis of the membership zip codes shows a concentration of IATSE Local 479 members around Atlanta and the state's northern half; however, members of the union live across Georgia.
9.3. Training and Education

A successful film and television production industry also requires an effective pipeline of talent – delivering new workers into the industry or workers with relevant skills transferring into the industry from other areas. Because of the breadth of skills and expertise required in the film and television production industry, there are several effective pathways to deliver training and upskilling, including university or college degrees, certifications, professional development, and industry transfer.

Georgia is home to the GFA – an internationally renowned training program operating since 2015. The GFA is a joint initiative between the University System of Georgia (USG) and the Technical College System of Georgia. Through the GFA, there are training opportunities across 28 partner institutions in Georgia for both degree-seeking and non-degree-seeking students. Figure 64 below shows the full spread of GFA partner institutions across the state. Unlike

Note: IATSE Local 479 includes members with a home base in other US states. Members who list a non-Georgia zip code as their residence have not been included in this map.
training opportunities in other jurisdictions – both in the US and internationally – which are typically delivered ad-hoc by various universities, institutions, and organizations, this initiative ensures a joined-up approach to training incoming above-the-line and below-the-line crew for the Georgia industry. The GFA certifications are practical and industry-led, ensuring that those who have completed a certification are industry-ready and can immediately work on professional productions across the state. See the case study in 9.4 for further information about the GFA.

Figure 64 – Georgia Film Academy Partner Institutions

Students in Georgia also have education opportunities beyond the GFA certifications including traditional degree programs at USG institutions, HBCUs and private colleges. SCAD offers bachelor’s and master’s degrees in film and television at its Savannah and Atlanta campuses. Degree programs in parallel and overlapping majors, including animation, production design, sound, visual effects, immersive reality, interactive design, and game development are also available to students. SCAD Savannah has been included in The Hollywood Reporter’s annual list of the top 25 film schools in the US since 2012.

Film and television students at SCAD have access to cutting-edge equipment and production spaces. Students at SCAD Atlanta have access to an LED volume stage in the SCAD Digital Media Center, a 60,000-square-foot facility that formerly housed the Atlanta television station

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116 Historically black colleges and universities
Students on the Savannah campus have access to the Savannah Film Studios. In 2021, it was announced that the studio was undergoing an expansion that would add a film backlot and a 2,000 square feet XR stage to the site, which already includes three soundstages, lighting grids, post-production suites, and recording booths.\(^{118}\)

In 2021, it was estimated that 3,500 SCAD alumni work within Georgia’s entertainment industry, including working in film and television.\(^{119}\) Because of Georgia’s flourishing film and television production industry, SCAD students and alumni have received opportunities to work on several leading productions, including *The Underground Railroad* (2021), *Everything Everywhere All at Once* (2022), *Black Panther: Wakanda Forever* (2022), and *May December* (2023).\(^{120}\) According to The Hollywood Reporter, in 2022, over 150 SCAD alumni contributed to 21 Oscar-nominated and Oscar-winning films.\(^{121}\)

Organizations such as Fresh Films also offer young Georgia residents alternative pathways into the industry. These organizations typically deliver shorter, targeted courses designed to introduce people to key roles and skills within the industry and provide them with the tools to build economic mobility in a high-growth, high-wage segment of Georgia’s economy.

With 24 locations across the US, including Georgia, Fresh Films is a national training provider that provides training courses, internships, and workshops for young people wanting to enter the creative industries. Fresh Films courses run out of professional studio facilities, high schools, colleges and community spaces. Students participating in these courses are typically from low-income or marginalized backgrounds. Fresh Films partners with local governments or organizations to reduce the fees associated with these types of courses to ensure all interested students can participate. These courses are typically either free or students are paid for their participation.

Fresh Films ran an accelerated training program for Gwinnett County residents aged between 18 and 26 between February and June 2023. With classes twice a week, students received production and editing training and attended workshops and seminars with industry professionals. Students were also given an opportunity to work in film crews for Fremantle, the Roku Channel, and Sony Pictures. This program was free due to a grant provided by Explore Gwinnett Tourism & Film.\(^{122}\) In July 2023, Fresh Films ran a paid internship for Fulton County residents aged between 16 and 24. In addition to receiving hands-on production experience, interns were paid $15 per hour across the 100-hour program.\(^{123}\)

Organizations such as Fresh Films democratize access and opportunities for historically marginalized Georgia teens and young adults, creating bridges to jobs in the film and television industry.

In addition, professional development opportunities enable those already working in the industry to maintain their skills in a fast-paced, technologically-driven industry and diversify their skills to meet the needs of the industry. IATSE Local 479 established an education department in 2014 to offer professional development training in the crafts represented by the

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\(^{118}\) SCAD Announces Expansion of Savannah Film Studios. Ibid

\(^{119}\) Ibid


\(^{122}\) Advanced Skills & Connections for Jobs in Georgia’s Film and TV Industry. Fresh Films. Accessible at: [https://freshfilms.org/qa/%3A%3A-text%3AWhether%20you%20are%20in%20college%2C%20Georgia%27s%20film%20and%20TV%20industry](https://freshfilms.org/qa/%3A%3A-text%3AWhether%20you%20are%20in%20college%2C%20Georgia%27s%20film%20and%20TV%20industry)

\(^{123}\) Paid Summer Film Program in Fulton County, Georgia. Fresh Films. Accessible at: [https://freshfilms.org/summerfulton/](https://freshfilms.org/summerfulton/)
union. These courses cater to new entrants to the industry, as well as existing members who are looking to upskill or earn new certifications.

By mid-August 2023, 314 in-person training classes have been conducted, with more than 3,400 Local 479 members attending. Classes offered in 2023 include everything from accounting for crafts to construction prop-making to a two-day introduction to grip course. Classes on CPR, mental health first aid, and set safety are also regularly delivered. Led by industry experts, the classes are interactive and offered across the week to fit alongside the production schedules of Local 479 members. A dedicated 3,000-square-foot training facility in Atlanta hosts the majority of the classes.

9.4. Case Study: Georgia Film Academy

Established in 2015, the GFA is a joint initiative between the University System of Georgia (USG) and the Technical College System of Georgia. It aims to meet the educational and employment needs of Georgia's film and television sector.

The GFA offer three industry certifications delivered through 28 partner institutions across Georgia, including Savannah State University, the University of Georgia and Georgia State University. The GFA also works with these educational institutions to develop industry-relevant curricula and training opportunities. Through its partnerships with educational institutions, industry entities such as Disney, MGM, Netflix, HBO and industry unions IATSE Local 479 and Local 491, the GFA ensures its curriculum remains attuned to industry-relevant needs and provides students with a practical education that prepares them for work in the film and television industries.

Aims and Objectives

The GFA aims to bridge the skills gap in the state’s growing film and television sector by offering targeted education and training programs. Through its industry collaborations, the GFA aims to continuously adapt its curricula to furnish students with the relevant skills and credentials needed to enter Georgia’s expanding film and television industry.

Impact

Since its foundation, the GFA has profoundly influenced Georgia’s film and television landscape and is now considered the gold standard for industry training. Working alongside major Georgia studios like Trilith Studios, Athena Studios, and OFS Studios and leveraging expert instructors and state-of-the-art equipment, the GFA has created a unique environment to ensure students across Georgia are poised for industry integration post-certification. Notably, the GFA has collaborated with Trilith Studios (then Pinewood Atlanta), where it opened a 15,860 square-foot soundstage for hands-on experience education as part of the Semester on Set initiative.

Similarly, Athena Studios has dedicated a 14,600-square-foot soundstage and learning center exclusively for the education and training of students in the University of Georgia and the GFA programs. These partnerships with studios and the provision of student soundstages underscore the GFA’s commitment to providing real-world training environments for its students.

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124 Participating Institutions. Georgia Film Academy. Accessible at: https://georgiafilmacademy.edu/academics/participating-institutions


GFA students are provided first-hand production experience and an opportunity to jumpstart their careers through the GFA’s internship/apprenticeship course. Part of their industry certifications, the GFA internship/apprenticeship is a highly competitive course which matches eligible students with professional film and television productions shooting in Georgia. Thanks to the GFA’s strong engagement with the film and television industry and great relationships with IATSE and the Georgia Film Office, the GFA are able to reach out to every production that shoots in Georgia to source potential internships, apprenticeships and jobs for GFA students. Since its inception, the GFA has placed 1200 interns onto over 150 films and television productions.

GFA instructors are experienced industry professionals able to develop and deliver coursework that aligns with the needs of an industry often characterized by rapid technological changes. Chuck E. Kerr, lead production instructor, and Greg Gause, head of post-production, lead a team of instructors who, along with GFA leadership and professional staff, hold more than 834 years of professional film and television experience. Many GFA faculty continue to work in Georgia’s film and television industry and, as a result, provide valuable current insight, knowledge and experience to the GFA student cohort.

To extend the film and television production training pipeline to high school students, GFA has launched secondary school programs to provide curriculum and teacher training in the areas of content creation, production, and post-production so that students may be exposed to the full ecosystem of the film, television and digital entertainment industries.

The GFA, in partnership with the Career, Technical, and Agricultural Education division of the Georgia Department of Education, created and now offers GFA production training workshops designed to teach Audio-Visual Technology and Film (AVTF) teachers across the state the latest film standards and provide the schools with updated film equipment to supplement their existing AVTF programs. Working with the Fayette County Schools and the Georgia Department of Education, The GFA also helped to create a new English Language Arts (ELA) course called ‘Dramatic Writing for Film, Television and Theater 1’. This course can serve as an ELA core requirement option as well as a Fine Arts elective. Complementing this course, the GFA conducts training workshops to certify teachers. In the past five years, more than 360 educators have completed this course, which is estimated to have reached over 12,500 students throughout the state.

These endeavors are directly aligned with the GFA’s objective of fostering and expanding the state’s film, television, and creative media industries, and to foster and retain creative talent in Georgia. Through partnering with educational institutions across Georgia, the GFA has enabled students from all backgrounds access to an education that will lead to career in a high-growth industry.
Part VI: Appendices
10. APPENDIX ONE – METHODOLOGY

10.1. Economic Impact Methodology – Screen Production

10.1.1. Introduction

The core economic impact of the tax credit relates to the production expenditure associated with incentivized productions. This section sets out the Input-Output (I-O) modeling methodology for assessing this route of impact.

The economic impact approach utilizes production expenditure data and incentive payment information. It combines this with a quantitative additionality assessment as an input into the economic modeling, as set out in Figure 65.

Figure 65 – Overview of the Economic Impact Model for Production

10.1.2. Production and Incentive Data Sources

SPI undertook a thorough data review and gathering exercise to ascertain the best available data for the study, including data from GDEcD, GDOR and directly from production companies. SPI concluded that the best complete data set on production expenditure is that collected and published by GDEcD, collected at the time of application. It is allocated a fiscal year based on the date of application to GDEcD, which may be before production commences but no later than 90 days after principal photography commences. This data excludes productions which did not occur and splits expenditure by production type (feature film, series etc.). As with most data sets, there are limitations to the accuracy of this data, including that this presents anticipated expenditure rather than final audited amounts, nonetheless, it is the most accurate source of production expenditure data.

The GDEcD data does not contain any information on the tax credits committed. The GDOR data provides this information for only a subset (i.e., audited) productions. Therefore, based on the data received to date, it was necessary to model the tax credit values using the credit rate (20% for commercials and 30% for all other productions) and GDEcD data for the production expenditure in Georgia. Using this methodology and weighting based on expenditure, the average credit rate between FY 12 and FY 22 works out 29.8%.

As the GDEcD data captures expenditure on application (which has not been subject to audit), it is not necessary to apply a disallowance rate to these figures.
**10.1.3. IMPLAN Modeling**

For this Study, SPI used an established economic impact modeling software called IMPLAN. IMPLAN is a robust economic tool that has been used and developed for over 40 years. It is widely used by local governments, business professionals, and academics to analyze economic development policies and programs. It combines extensive databases, economic factors, multipliers, and demographic statistics to model the economy in the United States. Its cloud-based software provides functionality to model economic changes at a local, regional, and state level.

I-O modeling and, specifically, the IMPLAN model will determine the total economic impact of a particular investment or activity. This total will be the sum of the direct, indirect, and induced effects. IMPLAN includes taxation modeling functionality, which is discussed and displayed in more detail in Appendix Two – IMPLAN Tax Impacts.

The production analysis utilizes IMPLAN sector 429 motion picture and video industries, which aligns with NAICS 5121 (motion picture and video industries).

The latest release of the IMPLAN model is based on 2021 data. IMPLAN data is updated annually, but the ‘current’ year lags behind the calendar year. IMPLAN typically releases US annual data in December the following year after the calendar year is complete. Therefore, 2022 data is not expected to be available until December 2023. Before undertaking analysis, SPI reviewed the IMPLAN model for Georgia and undertook some testing on the 2020 and 2021 models. This has been recognized by IMPLAN, which recommends that due to the specific impact of the pandemic on tax receipts, tax estimates for 2019 should be used in lieu of the 2020 data year. SPI’s analysis also indicated that similar tax effects occurred in 2021 (given the ongoing impact of the pandemic). Therefore, due to this combination of factors – 2022 data not yet being available and caution over the 2020 and the 2021 modeling – the SPI analysis

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was run using the 2019 data year while updating the spending values to the most recently available.

10.1.4. Key Data Sets and Sources

IMPLAN uses various data sources, which are combined to build the dataset on which the analysis is based.

The analysis presented in the Study draws on production data from applications from GDEcD. As part of the project, SPI undertook extensive research of the available production and incentive data, including requesting additional data from the GDOR, production accountants, and production companies. While some useful data were received, data gaps remained, leading to SPI’s assessment that the GDEcD data is the most accurate picture of production expenditure in the state. The associated tax credit values were estimated based on the effective rate from this overall production expenditure figure.

10.1.5. Adjustments to IMPLAN

It is possible to change some of the assumptions within the IMPLAN model where better primary data exists to make the model more reflective of the sector under consideration. SPI was able to make such an adjustment in this Study. Using data provided by production companies, SPI could estimate the average proportion of production expenditure that goes to payroll and the proportion to vendor spend. The implicit assumption in IMPLAN is that for sector 429 (motion picture and video industries), around 30% of expenditure is on payroll. Data from 21 community spend reports of productions in Georgia indicate that payroll makes up 63.1% of the total production expenditure, while vendor spending was 36.9%. These figures accord with our consultation evidence. SPI, therefore, used these figures to customize the IMPLAN model (through the ‘customized region function’) to obtain more accurate estimates of the impacts of the incentive.

10.1.6. IMPLAN Multipliers and Average Labor Income

The following multipliers have been derived from IMPLAN. These multipliers differ from the standard IMPLAN multipliers for the motion picture sector because the model was adjusted to better reflect the payroll/vendor split of productions in Georgia. The adjusted region has a higher proportion of employment as direct rather than indirect elements, and the multipliers are somewhat lower to reflect this shift.

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<thead>
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<th>Type</th>
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<th>Type II</th>
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<tr>
<td>GVA</td>
<td>1.29</td>
<td>1.73</td>
</tr>
<tr>
<td>Employment</td>
<td>1.30</td>
<td>1.74</td>
</tr>
</tbody>
</table>

Source: SPI analysis of IMPLAN data (2023)

The IMPLAN model for 2021 indicates that the estimated labor income per worker for the motion picture production activity in Georgia was $81,299, compared to $65,799 across all industries.\(^{128}\)

As set out above, this analysis is based on the 2019 IMPLAN model due to the latest model years being affected by the pandemic. The implicit average labor income per employee for the motion picture sector is $64,254 for direct jobs, $57,763 for indirect jobs, and $49,405 for

\(^{128}\) This cannot be compared to the average wage data from the Bureau of Labor Statistics reported on page 10 and page 41 as IMPLAN incorporates proprietor income and non-wage benefits in estimations of labor income.
induced jobs. There has been some real (as well as nominal) wage inflation in recent years, which means that the labor income estimates in this study are likely to be conservative.

**Table 8 – Derived Multipliers, Construction for 2022**

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<thead>
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<th>Type I</th>
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<tbody>
<tr>
<td>Output</td>
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<td>GVA</td>
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<tr>
<td>Employment</td>
<td>1.20</td>
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</tbody>
</table>

Source: SPI analysis of IMPLAN data (2023)

10.1.7. Additionality

The issue of what production would happen in Georgia in the absence of an incentive, and therefore the proportion of economic impact that can be attributed to the incentive, is often referred to as the ‘but for’ argument – i.e., the impact that would not have been created locally ‘but for’ the incentive.

The most robust method to test the ‘but for’ or counterfactual is a quasi-experimental testing approach. For this, a ‘control’ needs to be found, which is a jurisdiction or group of jurisdictions with similar operating conditions but without an incentive. However, it is not possible to undertake such an experiment as activity in any control jurisdictions without an incentive offer would be highly impacted by incentives offered by other jurisdictions, given the prevalence of incentives and the industry’s high sensitivity to them.

This Study tested the ‘but for’ assumption by undertaking a survey and consultations with key industry decision-makers to determine what would have happened in the absence of the incentive. The economic results incorporate this assessment of additionality. A survey was sent to all of GDEcD’s contact companies who applied for the incentive. It contained three key additionality questions addressing:

- The factors drawing the project to Georgia. The incentive is one of the factors listed along with elements such as locations and talent, and the respondent was asked to rate the importance of each. This question was presented first, and the response options were presented in alphabetical order to reduce anchoring bias.
- The specific importance of the incentive in drawing the project as an individual rating.
- How much lower project spend in Georgia would have been without the availability of the incentive.

The survey received 44 responses, including production companies based both in and out of state. This included all the major producers and covered approximately 82% of expenditure in Georgia between FY 2018 and FY 2022. This is a very high level of coverage for recent years. Inevitably, the further the survey reaches back, the lower the response rate. There is a small risk that the survey results are not a good representation of additionality in earlier years of the program. However, practicalities make it difficult to test this accurately. For the purposes of modeling, it has been assumed that the additionality rate has not changed over time.

10.1.8. GVA Return on Investment (ROI)

The GVA or Economic ROI measure aligns with the economic development objectives of the tax credit. This measure compares the net cost of the tax credit with the ‘net’ GVA impact. SPI presents a combined ROI figure for the production and the construction impact.

The net cost of a tax credit program is calculated by:

- Determining the total value of tax credits by fiscal year of production.
Deducting the total state and local tax receipts associated with incentivized production. The net GVA is the total GVA impact (direct, indirect, and induced) minus that GVA associated with production activity that would have happened in the state without the incentive.

There has been some discussion about adjusting the GVA ROI figures to reflect that the cost of the incentive (foregone tax receipts by the state) is incurred for a period of time after the benefits (the output, GVA, and jobs) occur. Modeling this includes adjusting the costs of the scheme with a discount rate. Appendix Three sets out some sensitivity to the GVA ROI figures based on different discount and timing assumptions. For transparency, simplicity, and to err on the side of conservativism, the non-discounted results are presented in the report.

10.1.9. Opportunity Cost

Opportunity cost is the value of choosing to invest in one course of action over another. In this case, it is the value that could have been realized by using the foregone tax revenue incurred by the state (the ‘cost’ of the tax credits) for a different use. Practically, accurately modeling this opportunity cost is a very difficult thing to do. There are many different ways the foregone tax revenue could be used – for example, it could be used on another economic development program, spent on public services such as schools or infrastructure, or it could be used to reduce the tax burden for corporations or individuals. The value of some of these alternative uses might result in non-market values that are difficult to measure accurately. The way a program or tax reduction is implemented will materially affect its overall impact, and modeling of all other uses of the foregone tax could not involve these nuances.

It is for these reasons; SPI does not incorporate an opportunity cost factor into the ROI figure.

10.2. Economic Impact Methodology – Construction

10.2.1. Overview

This analysis includes studio construction impacts between FY 2012 and FY 2022 and the future construction impacts of planned investments anticipated to happen between FY 2023 and FY 2027. For this analysis, construction includes construction-related costs, including design fees. Purchase of land and any equipment is not included in the economic impact analysis. The purchase value of land is just a transfer of funds rather than a generator of economic activity. There are practical challenges in modeling the economic impact of equipment purchases, such as identifying the total spent on equipment and separating out Georgia vendors from those outside the state. Also, the overall economic impact of equipment purchases is likely to be relatively small as the value will be in the retail of the equipment rather than the manufacture of equipment (most of which will happen outside of Georgia).

The economic impacts associated with the running of studios are included as part of the production expenditure analysis as studio facility costs are included in production expenditure, meaning that the studios are effectively part of the supply chain for productions. This impact is, therefore, included as part of the indirect impact of the production expenditure economic impact analysis and is not included in the construction analysis.

IMPLAN was also used for this analysis. Figure 67 summarizes the key data inputs and the results.
10.2.2. IMPLAN Modeling

State-level construction impacts. SPI undertook extensive primary survey work with all major studio developers, investors, and operators to build a data set on the estimated construction costs of the studio, as well as other data points. This provided a comprehensive picture of construction costs between FY 2012 and FY 2022 and planned investment between FY 2023 to FY 2027.

Local-level construction impacts. To estimate the local construction for Fayette County and Newton County, the construction expenditure of the studios was used as an input to a county-level IMPLAN model.

The construction analysis utilizes IMPLAN sector 55 construction of new commercial structures, including farm structures, which includes new buildings, alterations, and conversations for buildings such as commercial warehouses, office buildings, and hotels. Having reviewed the relevant IMPLAN construction codes, this is the most relevant to studio construction.

10.2.3. Additionality

As with the production analysis, a stakeholder survey was sent to those who had invested in studio expansions or new construction over the last ten years. This survey included questions that aimed to assess the tax credit’s influence on their investment decision. The questions included:

- If there was no Georgia Entertainment Industry Tax Credit, how much of your construction expenditure on studio developments would have happened in Georgia in the last ten years?

- On a scale of 0-10, please rate the importance of the Georgia Entertainment Industry Tax Credit in your decision to invest in studio construction in Georgia (where 0 indicates it was not at all a factor and 10 indicates that it was the only factor).

10.3. General Limitations of Input-Output Approach

I-O 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 worldwide by governments 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 with international best practices.129

As with all modeling approaches, there are limitations to the approach. Specifically, I-O analysis makes the following assumptions:

- **No supply constraints.** I-O assumes there are no restrictions on inputs, raw materials, and employment. This means modeling a change in the industry needs to be undertaken sensitively when this assumption might not hold. In this Study, SPI has identified potential supply constraints and indicated where action is necessary to mitigate these.

- **The model is not dynamic.** There are no embedded feedback loops or price effects dampening demand. I-O does not account for the counteracting or balancing effects of a change being offset or counteracted by a change in another industry.

- **Constant returns to scale.** The same quantity of inputs is needed per unit of output, regardless of the production level.

**Input structure is fixed.** Economic changes are assumed to affect the level of inputs and outputs but not the mix.

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129 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](https://deadline.com/wp-content/uploads/2012/05/motion-picture-assoc-film-credit-study__120510071748.pdf)
11. APPENDIX TWO – IMPLAN TAX IMPACTS

The economic activity stimulated by a tax incentive, in turn, leads to an uplift in tax take for the local, state, and federal government. These taxes are wide-ranging and include taxes on profits, payroll, and income. While tax generation is not a central aim of tax credit programs and therefore tax revenues should not be used as the primary measure of the effectiveness of the tax credit, the tax revenue results from the IMPLAN modeling are presented here.

To build the model, IMPLAN draws on a wide range of data sources including from the Census Bureau and the Bureau of Economic Analysis to build an assessment of tax. The types and government level which IMPLAN incorporates are set out in Table 9.

Table 9 – Levels and Type of Taxes Estimated by IMPLAN

<table>
<thead>
<tr>
<th>IMPLAN Definition</th>
<th>Type of Tax</th>
<th>Specific Tax Include</th>
<th>Where it is levied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Property Income (OPI)</td>
<td>Corporate Profits</td>
<td>Corporate profits tax, corporate income tax, private enterprise tax, profits tax</td>
<td>Federal, State, County, Sub County General</td>
</tr>
<tr>
<td>Taxes on Production &amp; Imports Net of Subsidies (TOPI)</td>
<td>Sales Tax</td>
<td>Hotel, Gasoline, and Meals</td>
<td>State, County, Sub County General, Sub County Special</td>
</tr>
<tr>
<td>Property Tax</td>
<td>Machinery and Equipment Property</td>
<td></td>
<td>State, County, Sub County General, Sub County Special</td>
</tr>
<tr>
<td>Motor Vehicle License</td>
<td>License plate and business registration fees</td>
<td></td>
<td>State, County, Sub County General, Sub County Special</td>
</tr>
<tr>
<td>Severance Tax</td>
<td>Carbon Dioxide and Timber</td>
<td></td>
<td>State, County, Sub County General</td>
</tr>
<tr>
<td>Other Taxes</td>
<td>Documentary Fee</td>
<td></td>
<td>State, Sub County General, Sub County Special</td>
</tr>
<tr>
<td>Special Assessments</td>
<td>Fee and Fine</td>
<td></td>
<td>State, Sub County General, Sub County Special</td>
</tr>
<tr>
<td>Excise Tax</td>
<td>Air Transportation, Health Insurance</td>
<td></td>
<td>Federal</td>
</tr>
<tr>
<td>Custom Duty</td>
<td>Import Tax, Custom Duties</td>
<td></td>
<td>Federal</td>
</tr>
<tr>
<td>Social Insurance Taxes</td>
<td>Employee Contribution</td>
<td>Social Security</td>
<td>Federal, State, County</td>
</tr>
</tbody>
</table>

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6th November 2023
Table 10 sets out the taxes generated by the tax credit between FY 2018 and FY 2022.

**Table 10 – Tax Generated by the Georgia Entertainment Industry Tax Credit, Production and Construction Effects, FY 2018 – FY 2022 ($ million, 2023 prices)**

<table>
<thead>
<tr>
<th></th>
<th>Local</th>
<th>State</th>
<th>Federal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>179</td>
<td>304</td>
<td>1,567</td>
</tr>
<tr>
<td>Indirect</td>
<td>76</td>
<td>100</td>
<td>419</td>
</tr>
<tr>
<td>Induced</td>
<td>234</td>
<td>216</td>
<td>573</td>
</tr>
<tr>
<td>Total</td>
<td>489</td>
<td>620</td>
<td>2,559</td>
</tr>
</tbody>
</table>

**Table 11 – Tax Generated by the Georgia Entertainment Industry Tax Credit, Production and Construction Effects, FY 2022 ($ million, 2023 prices)**

<table>
<thead>
<tr>
<th></th>
<th>Local</th>
<th>State</th>
<th>Federal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>48</td>
<td>86</td>
<td>454</td>
</tr>
<tr>
<td>Indirect</td>
<td>23</td>
<td>29</td>
<td>122</td>
</tr>
<tr>
<td>Induced</td>
<td>67</td>
<td>63</td>
<td>167</td>
</tr>
<tr>
<td>Total</td>
<td>138</td>
<td>178</td>
<td>742</td>
</tr>
</tbody>
</table>
12. APPENDIX THREE – ROI SENSITIVITY ANALYSIS AND TIME DELAY ON PROGRAM COSTS

There is a delay between the expenditure of incentivized productions and the cost to the state in terms of foregone tax revenues. This delay has a real positive impact on the state balance sheet. In economic analysis, this value can be modeled using a discount rate.

Due to the way the Georgia incentive is administered and how production companies receive the benefit (either as a reduction to their tax liability in the state or in cash after the sale of the credit on the open market), the cost of the incentive (foregone tax receipts by the state) are incurred a period of time after the benefits (the output, GVA, and jobs) occur.

SPI has undertaken sensitivity modeling to explore the impact of different assumptions about the timing and the rate at which future costs should be discounted.

Consultation evidence suggests that the delay between expenditure occurring, and the foregone tax revenue is between one and two years, although there is no quantitative data to corroborate this.

The correct discount rate to apply is also something there is not a settled opinion on in this type of study. Recent federal guidance indicates a rate of 1.2% to discount constant-dollar flows or 4.0% for nominal flows should be used. As all the analysis undertaken uses 2023 constant prices, there is justification for this 1.2% rate to be used. A previous study of the Georgia incentive used the rate of 4% but did not give a justification for this. Both the 4%, the 1.2%, and a 3% example are included in the sensitivity analysis summarized in Table 12 below.

Table 12 – Sensitivity of Combined GVA ROI to Assumptions on Discounting

<table>
<thead>
<tr>
<th>Approach used for calculating GVA ROI in the Study</th>
<th>Time lag assumption</th>
<th>Discount rate</th>
<th>Combined GVA ROI</th>
</tr>
</thead>
<tbody>
<tr>
<td>No lag</td>
<td>None applied</td>
<td></td>
<td>6.25</td>
</tr>
<tr>
<td>Low discount rate, medium lag</td>
<td>1.5 years</td>
<td>1.2%</td>
<td>6.43</td>
</tr>
<tr>
<td>Low discount rate, longer lag</td>
<td>2 years</td>
<td>1.2%</td>
<td>6.49</td>
</tr>
<tr>
<td>Medium discount rate, short lag</td>
<td>1 year</td>
<td>3%</td>
<td>6.54</td>
</tr>
<tr>
<td>Medium discount rate, longer lag</td>
<td>2 years</td>
<td>3%</td>
<td>6.82</td>
</tr>
<tr>
<td>High discount rate, longer lag</td>
<td>2 years</td>
<td>4%</td>
<td>7.03</td>
</tr>
</tbody>
</table>

Source: SPI analysis (2023)

In each of these cases, the GVA ROI remains high and positive. Varying the assumptions leads to a variation of GVA ROI by 0.78. The discount rate and time horizon with the strongest...
justification, the 1.2% discount rate with the 1.5-year time lag, leads to a rise in the combined GVA ROI from 6.25 to 6.43.

The sensitivity analysis results highlight that as the lag between benefits and costs increases, the overall GVA ROI also increases. Therefore, the recent backlog in audit processing is effectively reducing the overall cost to the state, something that is exacerbated by current high interest rates.
13. APPENDIX FOUR – THE RIPPLE EFFECT ANALYSIS

Film and television productions 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 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.


The Ripple Effect 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 labor 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 television production uses the services of general business equipment, services, and the supplies sector in many ways. This can 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 can 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. Therefore, these costs are 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 any 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. However, 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-the-line and below-the-line personnel into and around where the production is located. Furthermore, a moving unit requires considerable transport backup – 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 for productions, regardless of whether they are largely studio-based or predominantly moving between different locations.

Mobile catering companies usually provide catering for the working unit, but the quality and availability of restaurants are also important to those having traveled to the production location.

Finance and Legal
With many standard and specialized contracts to be negotiated, Screen production has many requirements for this business sector. A production's accounts department also holds a crucial role, especially as many projects involve funding sources that require external audits.

Fashion and Beauty
For many contemporary productions, on-screen costume requirements may simply be purchased from high street shops, while shows with a period or futuristic setting will require considerable work by skilled cutters, tailors, and dressmakers. Spending on specific costume hire is 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 with the broader fashion and beauty sector.
Music and Performing Arts

It is sometimes challenging to differentiate between music, performing arts, and the Screen production specific sectors. 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 may also work in art exhibitions and theatres. Actors often move continuously between live theatre and screen. Producers constantly look to the live theatre scene for new talent, and many writers move between live theatre and screen.

Musicians and singers who work in orchestras and opera companies will often be found in recording studios providing background music for Screen sector 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 specialist trained health and safety advisors are common. Stunt work, for example, calls for close cooperation between the production, the stunt coordinator, and on-site health and safety officers.

Security, particularly on location, can be coordinated by the production but will require 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 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 pandemic, with considerably increased costs in this category as a result.

Local Labor Miscellaneous

Some labor costs may be identified in the analysis where it will not be sufficiently clear which expenditure category they belong to. These costs have, therefore, been allocated to this miscellaneous category.
14. APPENDIX FIVE – BIBLIOGRAPHY

- 2020 U.S. Data Release Notes, IMPLAN.
- 2022’s Top 25 American Film Schools, Ranked. The Hollywood Reporter, 5\textsuperscript{th} August 2022.
- 2023 Top 25 American Film Schools, Ranked. The Hollywood Reporter, 11\textsuperscript{th} August 2023.
- Administration of Georgia Entertainment Industry Tax Credit – Controls over credit administration have been strengthened. Follow-up Review. Report Number 22-05A. Georgia Department of Audits & Accounts, July 2022.
- Advanced Skills & Connections for Jobs in Georgia’s Film and TV Industry. Fresh Films. Accessible.
- AMC's The Walking Dead Brings Surge In Film Tourism To Georgia. The Location Guide, 26\textsuperscript{th} February 2016.
- Anticipated Demand Prompts Expansion for Athena Studios. Athena Studios, 16\textsuperscript{th} August 2022.
- Athena Studios Dedicates State-Of-The Art Soundstage, Learning Center To The University Of Georgia And Georgia Film Academy. Athena Studios, 4\textsuperscript{th} November 2022.
- Atlanta’s Trilith Studios to Open 18,000-Square-Foot Virtual Production Facility With NEP. Variety, 9\textsuperscript{th} November 2021.
- Benefit Assessment of Ontario’s Film and Television Tax Credits. PwC for Film Ontario, December 2022.
- Budget 2024: Fís Éireann/Screen Ireland Welcomes Increase of Section 481 Eligible Expenditure Cap. Screen Ireland, 10\textsuperscript{th} October 2023.
- Celebrating 50 Years of the Georgia Film Office, Film, TV Productions Spend $4.1B in State in FY23. GDEcD, 13\textsuperscript{th} September 2023.
- Cinelease Studios- Three Ring Breaks Ground on $144 million Studio Expansion. Cinelease Studios, 23\textsuperscript{rd} March 2022.
- Cinespace Studios Acquires EUE / Screen Gems Atlanta And Wilmington Sound Stages To Expand Its Global Production Platform. Cision PR Newswire, 27\textsuperscript{th} September 2023.
- Economic Contributions of Georgia Film and Television Industry. Meyers Norris Penny LLP for the Motion Picture Association of America, 2011.
- Economic Impact of the Film Industry in Newton County, Georgia. Tripp Umbach, 25\textsuperscript{th} June 2021.
- Economic Impact of the New Mexico Film Production Tax Credit. Olsberg SPI, 2021.
- Economic Impact of the New Mexico Film Production Tax Credit Study Update, New Mexico Film Office, 19\textsuperscript{th} December 2022.
- Economic Impact of Utah’s Film and Television Incentive Program. Olsberg SPI, 2022.
- Entertainment Production Industry Generates $125.6 Million in Direct Spend in Savannah Region in 2019. SEDA.
- Evaluating The Effectiveness Of State Film Tax Credit Programs: Issues That Need To Be Considered. Ernst & Young, 2012.
- Expansion Incoming for EUE/Screen Gems. Oz Magazine, 23\textsuperscript{rd} June 2022.
- Film and TV Production in Georgia. Georgia Department of Economic Development, 7\textsuperscript{th} December 2011.
- Film at Savannah State University. Savannah State University.
Economic impact of the Georgia Entertainment Industry Tax Credit

- Film Business is Good Business. SEDA, 2022.
- Film Industry Generates $6 Billion for Georgia’s Economy. GDEcD, 9th July 2015.
- Film Studio Ready For Leasing, Nearing Completion In Covington. The Covington News, 31st July 2020.
- Film Tax Incentives. Georgia Film.
- House Bill 539, LC 18 4150/A. Georgia General Assembly.
- Impact of the Georgia Film Tax Credit. Georgia Department of Audits and Accounts, Performance Audit Division, January 2020.
- Impact of the Georgia Film Tax Credit. Georgia Department of Audits and Accounts Performance Audit Division, January 2020.
- New Georgia Film Academy Soundstage Opens At Pinewood Atlanta Studios. Pinewood, 26th April 2016.
- NJEDA Awards First Studio Partner Designation to Lions Gate Films Inc. New Jersey Economic Development Authority, 21st December 2022.
- Overnight Visitor Profile: State and Regions. GDEcD/Explore Georgia, 2023.
- Paid Summer Film Program in Fulton County, Georgia. Fresh Films.
- Participating Institutions. Georgia Film Academy.
- Pinewood Sells Stake in Atlanta Studios. The Reporter, 21st August 2019.
- Pinewood Studios Expands Into Georgia. LA Times, 29th April 2013.
- Required Mandatory Film Tax Credit Audit and Fees. Georgia Department of Revenue.
- Saudi Arabia Is Seeing An Uplift In Film Production Since Launching Its 40% Rebate. ScreenDaily, 19th May 2023.
- SCAD Announces Expansion of Savannah Film Studios. The Savannah College of Art and Design, 16th April 2021.
- SCAD Digital Media Center. SCAD.
- Silver Lake Leads $500 million Investment Into Soundstage Firms’ Expansion. The Hollywood Reporter, 14th June 2022.
Economic impact of the Georgia Entertainment Industry Tax Credit

- **Soundstage Filming Tax Credit Program.** California Film Commission.
- **Special Report: 24 Hours At Trilith, Atlanta's Country Hollywood.** Urbanize, 28th July 2023.
- **Stranger Things Season 4: How Georgia Economy Benefited from Latest Instalment of Sci-Fi Series.** GDEcD, 13th June 2022.
- **The Forest School.** Trilith Studios.
- **The Improvement of Spain's Tax Incentive for International Filming is Approved.** Spain Film Commission, 27th December 2022.
- **Tourism.** Savannah Area Chamber.
- **Trilith Studios Seeking Big Expansion Along Veterans Parkway.** The Citizen, 11th August 2022.
- **Trilith Studios Soundstages.** Trilith Studios.
- **Trilith. New Homes Division.**
- **Tyler Perry to Expand Fort MacPherson Lot and Build Entertainment District.** Tyler Perry, 2021.
- **Vampires Keep Bringing In Tourists, Money.** The Covington News, 14th March 2012.
- **Welcome Brochure.** Cinelease Studios.
- **Woodvale, Timber Hill Secure Financing for Movie Production Campus Expansion in Covington, Georgia.** Rebusiness Online, 2nd December 2021.
15. APPENDIX SIX – ABOUT THE GEORGIA SCREEN ENTERTAINMENT COALITION

The Georgia Screen Entertainment Coalition (GSEC) is the unified voice of Georgia’s film, television, and digital entertainment industry, dedicated to promoting and protecting the statewide economic opportunities it brings to Georgians. Its members include all major Georgia studios, crew, support businesses, content creators, workforce development and educational institutions, and leading industry infrastructure businesses.

As a statewide organization, GSEC also represents the interests of local communities and film commissions and advocates for policies and programs that bring film industry jobs and economic impact to communities in every corner of the state.

GSEC reinforces the economic opportunity driven by the film industry by providing expertise to elected officials and policymakers as they manage Georgia’s successful tax credit program that stimulates the industry’s growth; advocating for programs that enhance opportunities for jobs and training for Georgians; and supporting partnerships and investments that contribute to Georgia’s growth as a global leader for full-circle production from content creation to post-production.

GSEC is an affiliate of the Georgia Chamber of Commerce.

Learn more at GSECoalition.com.
16. APPENDIX SEVEN – ABOUT OLSBERG•SPI

SPI is an international creative industries consultancy specializing in the global screen sector. The company 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.

SPI’s expert advice, trusted vision, and proven track record create high levels of new and repeat business from a diverse group of companies and organizations, including:

- National governments, including culture and economics ministries
- National film institutes and screen agencies | 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 organizations
- Publishers and conference organizers.

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
- Analyzing 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 at kayleigh@o-spi.com for further information about this study.