OFFICE OF ECONOMIC
& DEMOGRAPHIC RESEARCH

Return on Investment for the Entertainment Industry Incentive Programs

January, 2015

Table of Contents

EXECUTIVE SUMMARY AND COMPARATIVE ANALYSIS

Background and Purpose

Legislation enacted in 2013 directs the Office of Economic and Demographic Research (EDR) and the Office of Program Policy Analysis and Government Accountability (OPPAGA) to analyze and evaluate 18 state economic development incentive programs on a recurring three-year schedule.[1] EDR is required to evaluate the economic benefits of each program, using project data from the most recent three-year period, and to provide an explanation of the model used in its analysis and the model's key assumptions. Economic benefit is defined as "the direct, indirect, and induced gains in state revenues as a percentage of the state's investment" – which includes "state grants, tax exemptions, tax refunds, tax credits, and other state incentives."[2] EDR's evaluation also requires identification of jobs created, the increase or decrease in personal income, and the impact on state Gross Domestic Product (GDP) for each program.

The review period covers Fiscal Years 2010-11, 2011-12, and 2012-13. In this report, the Entertainment Industry Sales Tax Exemption and Financial Incentive (tax credit) programs are under review.

Explanation of Return on Investment

In this report, the term return on investment (ROI) is synonymous with economic benefit, and is used in lieu of the statutory term. This measure does not address issues of overall effectiveness or societal benefit; instead, it focuses on tangible financial gains or losses to state revenues, and is ultimately conditioned by the state's tax policy.

The ROI is developed by summing state revenues generated by a program less state expenditures invested in the program, and dividing that calculation by the state's investment. It is most often used when a project is to be evaluated strictly on a monetary basis, and externalities and social costs and benefits—to the extent they exist—are excluded from the evaluation. The basic formula is:

$$\frac{\text{(Increase in State Revenue – State Investment)}}{\text{State Investment}}$$

Since EDR's Statewide Model[3] is used to develop these computations and to model the induced and indirect effects, EDR is able to simultaneously generate State Revenue and State Investment from the model so all feedback effects mirror reality. The result (a net number) is used in the final ROI calculation.

As used by EDR for this analysis, the returns can be categorized as follows:

- **Greater Than One (>1.0)**…the program more than breaks even; the return to the state produces more revenues than the total cost of the incentives.
- **Equal To One (=1.0)**…the program breaks even; the return to the state in additional revenues equals the total cost of the incentives.
- **Less Than One, But Positive (+, <1)**…the program does not break even; however, the state generates enough revenues to recover a portion of its cost for the incentives.

[1] Section 288.0001, F.S., as created by s. 1, ch. 2013-39, Laws of Florida & s. 1, ch. 2013-42, Laws of Florida.
[2] Section 288.005(1), F.S.
[3] See Methodology section for more details.

- **Less Than Zero (-, <0)**…the program does not recover any portion of the incentive cost, and state revenues are less than they would have been in the absence of the program because taxable activity is shifted to non-taxable activity or the state is paying more than the return it receives.

The numerical ROI can be interpreted as return in tax revenues for each dollar spent by the state. For example, a ROI of 2.5 would mean that $2.50 in tax revenues is received back from each dollar spent by the state.

The basic formula for return on investment is always calculated in the same manner, but the inputs used in the calculation can differ depending on the needs of the investor. Florida law requires the return to be measured from the state's perspective as the investor, in the form of state tax revenues. In this regard, the ROI is ultimately shaped by the state's tax code.

All of the issues contained in this report shape EDR's calculation of the ROI. Some of them are further addressed in the assumptions and findings.

Overall Results and Conclusions

This analysis develops a return on investment for the Entertainment Industry Sales Tax Exemption (STE) and Financial Incentives (tax credit, or FTC) programs and evaluates the key factors that affected their returns. There were three scenarios run for the analysis: two for the FTC program; and one for the STE program.

The STE program generated a positive ROI of **0.54**. The ROI estimate was determined by calculating the tax revenues which resulted from the activity associated with the film-related, music video and sound recording projects that were awarded credits within the three-year window of the analysis. Offsetting some of these tax revenues were tax receipts that would have been collected had the State used the cost of the tax exemptions for the general market basket of goods. A return of less than one means that the tax revenue generated by the project activity was insufficient to cover the cost of the granted exemptions.

Factors that affect the return are:

- Assumes not all recipients of certificates meet the "but for" requirement;
- No requirement for capital investment; and
- Participation in the Entertainment Industry Financial Incentive program.

The first FTC program scenario generated a positive ROI of **0.43**. This ROI estimate was determined by calculating the tax revenues that resulted from the activity associated with the film and digital media projects that were awarded credits, within the 3-year window of the analysis, but includes only the cost to the state of those credits redeemed during that period. Offsetting some of these tax revenues were tax receipts that would have been collected had the State used the cost of the tax credits for the general market basket of goods. A return of less than 1 means that the tax revenue generated by the project activity was insufficient to cover the cost of the credits awarded.

Factors that affect the return are:

- Assumes all projects meet the "but for" requirement;

- No requirement for capital investment;
- Participation in the sales tax exemption program for film; and
- Focuses on credits used and not credits awarded.

The credit award does not require the recipient to certify that the project would not take place in the absence of the credit. There is also no guarantee that some other Florida business, or for that matter a non-Florida business, which did not participate in the awards program may not have undertaken a similar project. This is less likely for feature films than for digital media, video games, TV productions, commercial films, and sound recording projects.

The second FTC scenario calculates the tax revenues that resulted from the activity associated with the film and digital media projects that were awarded credits, within the three-year window of the analysis, but includes the full costs of these credits to the state, whether or not they were redeemed during that period. Most of these unredeemed credits are corporate tax credits. This second FTC program scenario generated a positive result as well. However, the ROI drops from **0.43 to 0.25** when there is a full accounting of all credits awarded. This alternative scenario may provide a more accurate picture of the ROI for a mature program than the first FTC scenario which includes the lag time associated with the program's introduction. The factors that affect the return are similar to the first scenario:

- Assumes all projects meet the "but for" requirement;
- No requirement for capital investment; and
- Participation in the sales tax exemption program for film.

As pointed out above, neither of these programs specifically require that an applicant certify that the subsided activity would not have occurred in the absence of the incentives or tax exemptions. The following analysis assumes that the "but for" assumption holds, in all cases, for the FTC scenarios and in most cases, except where it is clearly untrue for the STE program scenario. As a consequence of this critical assumption, the calculated ROIs should be viewed as a "best case" estimate. In other words, they should be viewed as an upper bound on the "true" ROI of these two programs. This also holds true for the broader economic measures of output, state gross domestic product (GDP), state personal income and employment that are reported below.

Finally, this analysis does not assume any costs associated with the transfer of credits (i.e. discounting), which overstates the true state cost of the program relative to a pure grant program and, thereby, understates the maximum ROI for the same level of activity due to the increased economic efficiency of a grant program.

OVERVIEW OF THE ENTERTAINMENT INDUSTRY SALES TAX EXEMPTION AND FINANCIAL INCENTIVE PROGRAMS AND ROI

Background and Purpose

Florida offers financial incentives to encourage the commercial production of films, television programs, and other motion picture products (such as commercials and music videos), and digital media projects (interactive games, digital animation and visual effects) in the state. Florida's share of production has fluctuated over the years, in part in response to the Florida incentives and those available from competing states. According to the National Conference of State Legislatures, thirty-nine states and Puerto Rico offer some type of film incentive.[4]

As of 2014, Florida ranks 3rd in the nation for its number of film and television production companies. California and New York are 1st and 2nd, respectively. According to IBISWorld, an industry-based research provider, "The movie and video production industry is concentrated in regions that have developed significant studio and production facilities. Close proximity to these resources greatly benefits industry establishments by providing specialization, cooperation and easy access to local movie and video production talent." [5]

The industry is largely concentrated in California, which accounts for 38.4% of total domestic film production. New York holds 14.3% of industry establishments. Florida follows with 5.7% of industry establishments. Filming is done in studio and on location throughout the country.[6]

The Milken Institute reports that California's share of employment in the industry has declined by 10.3 percent from 2004 to 2012, from a 62 to 55.6 percent share. New York's has increased by 27.2 percent over the same period, from a 17.3 to 22 percent share. Florida's share decreased from approximately 6.2 to 4.5 percent of the total employment in the industry, while the shares for Louisiana, New Mexico and Georgia have increased.[7] The production cycle has three general stages: pre-production, principal photography and post-production. California has lost a significant share of principal photography for films and television production to other states as well as locations outside the U.S.; however, it still retains much of the pre-production and post-production activity. The California Legislative Analyst's Office (LAO) reports that in 2012, California (overwhelmingly in Los Angeles County) had 61 percent of the post-production jobs in the U.S.[8]

---

[4] As of March 28, 2014. http://www.ncsl.org/research/fiscal-policy/state-film-production-incentives-and-programs.aspx Nebraska and Vermont only offer sales tax exemptions, and North Dakota has a general income tax exemption for which film productions may qualify. This website also includes links to each state incentive program.

[5] IBISWorld – Industry Market Research, accessed 11/25/14.

[6] *Ibid.*

[7] The Milken Institute: "A Hollywood Exit, What California Must Do to Remain Competitive in Entertainment - and Keep Jobs," February 2014, p. 6. Industry employment as captured in NAICS industry code 5121: establishments primarily engaged in producing and /or distributing motion pictures, videos, television programs, or commercials and those exhibiting motion pictures or providing postproduction and related services.

[8] California Legislative Analyst's Office: "Overview of Motion Picture Industry and State Tax Credits," April 30, 2014, p. 10-11.

The Florida Office of Film and Entertainment, Department of Economic Opportunity
The Office of Film and Entertainment (OFE) is responsible for developing, marketing, promoting and providing services to the state's entertainment industry.[9] The Florida Film and Entertainment Advisory Council assists OFE with the ongoing revisions to the OFE's strategic plan and provides the Department of Economic Opportunity (DEO) and OFE with "industry insight and expertise related to developing, marketing, promoting and providing service to the state's entertainment industry."[10]

OFE and the Florida Department of Revenue (DOR) are responsible for administering the two film and entertainment incentive programs offered by the state: the Entertainment Industry Sales Tax Exemption (STE) and the Entertainment Industry Financial Incentive (tax credit, or FTC) programs.

Entertainment Industry Financial Incentive (Tax Credit) Program
The Entertainment Industry Financial Incentive (FTC) Program is offered by the state to encourage the use of Florida "as a site for filming, for the digital production of films, and to develop and sustain the workforce and infrastructure for film, digital media, and entertainment production." [11] The program is administered by the OFE, subject to the policies and oversight of the DEO. The program provides tax credits for qualified expenditures related to filming and production activities in Florida. The program began on July 1, 2010 and is scheduled to sunset on June 30, 2016.

Initially a cash refund incentive subject to an annual appropriation,[12] in 2010 the Legislature replaced it with a transferable tax credit program, available as an offset against any liability for the sales and use tax and corporate income tax.[13] These tax credits provide a reduction in taxes due, after verification that statutory or contractual terms have been met.

However, if the activity of the recipients of the credits results in no tax obligation, they are unable to benefit from the credits. To overcome this limitation, incentive recipients have the option to monetize the credits by selling them to an entity that has a tax obligation, either directly or through an intermediary (tax broker), and typically at a discount. The statues also authorize the transfer of the credit back to the state for 90 percent of the face value, however, this option is currently unavailable as no state funds have been appropriated for this purpose.[14]

Annual credit caps were initially set for five years, from FY 2010-11 through 2014-15, for a total of $242 million. In 2011, the Legislature increased the total to $254 million.[15] In 2012, the program was extended through FY 2015-16 and an additional $42 million in credits were authorized, for a total of $296 million for the six-year period.[16] OFE reports that all of the credits have been certified (or allocated to certified productions), and as of September 30, 2014, $119m of the $296m have been awarded.

Qualified expenditures include production expenditures incurred by a qualified production in Florida for:

---

[9] s. 288.1251, F.S.
[10] s. 288.1252, F.S.
[11] s. 288.1254(2), F.S.
[12] s. 2, ch. 2003-81, L.O.F.
[13] s. 28, ch. 2010-147, L.O.F.
[14] s. 288.1254(6)(a), F.S.
[15] s. 26, ch. 2011-76. L.O.F.
[16] s. 15, ch. 2012-32. L.O.F.

- Goods purchased or leased from, or services provided by, a vendor or supplier in Florida that is registered with the Department of State (DOS) or the Department of Revenue (DOR) and is doing business in Florida. (This does not include re-billed goods or services provided by an in-state company from out-of-state vendors or suppliers.) Eligible production goods and services include:
    - Sound stages, back lots, production editing, digital effects, sound recordings, sets, and set construction;
    - Entertainment-related rental equipment, including cameras and grip or electrical equipment;
    - Newly purchased computer software and hardware, up to $300,000; and
    - Meals, travel, and accommodations.
- Salary, wages, or other compensation paid to Florida residents, up to a maximum of $400,000 per resident.

Types of productions eligible for tax credits are: motion pictures; commercials; music videos; industrial or educational films; infomercials; documentary films; television series, and digital media projects (interactive games, digital animation and visual effects). Initially, three percent of the authorized tax credits are reserved for music videos, and three percent are reserved for independent and emerging media.

Awards are limited to productions within 180 days of project start dates. Awards may not be granted after the production has begun, and are capped at $8 million per project.

2012 EDR Analysis

At the request of the Office of the Governor, the Florida Office of Economic and Demographic Research (EDR) performed an analysis of the Entertainment Industry Financial Incentive Program in 2012. EDR used two models to conduct the analysis: the REMI Tax-PI model and the Statewide Model . The results were similar. The ROI was **0.46** for the statewide model, and **0.40** for REMI.

The 2012 analysis differs from the current analysis in several important ways: the 2012 analysis was prospective, estimating the economic impact of five years of incentive distributions over a ten year period. The current analysis is retrospective, estimating the impact of three years of incentive distributions (Fiscal Years 2010-11 through 2012-13). Consequently, the estimates are likely to be different, as the analyses measure different outputs over different periods.

Film Induced Tourism

The analysis for this report does not include any economic benefit that could be derived by film-induced tourism. Film-induced tourism is defined as tourist visits to the destination featured on television, video, or cinema screen.[17] Generally, films are more likely to reach larger audiences than specifically targeted tourism promotion.[18] Examples include the exposure of New Zealand in the *Lord of the Rings* trilogy or the visitors to the Clearwater Aquarium after the release of *Dolphin Tale*. Tourists can be categorized as those who just happen to visit a destination portrayed in a film, those who participate in film tourism activities as a secondary activity not motivated by the film, or those who seek out the

[17] Hudson, Simon and J.R. Brent Ritchie, “Promoting Destinations via Film Tourism: An Empirical Identification of Supporting Marketing Initiatives,” Journal of Travel Research, 44; 2006: 387.

[18] Croy, Glen W., “The Lord of the Rings, New Zealand and Tourism: Image Building with Film,” Working Paper. Monash University, Business and Economics, March 2004: 7.

places they have seen in film.[19] To date, there are few thorough studies that quantify the impacts of film tourism.[20] However, several studies have pointed to the need for further research.

Because Florida is already a significant tourist destination, marketing exposure through the entertainment industry would have to rival the mass marketing efforts by governmental and private entities in order to produce quantifiable results. Tourism promotion in Florida comes from sources such as state and local governments, private companies, and Florida's theme parks. These entities spent an estimated $1.37 billion during Fiscal Years 2010-11 through 2012-13 to attract tourists to the state (See EDR's *Return on Investment for Visit Florida* – January 2015).

As part of that study, EDR surveyed the various local governments that levy the Tourist Development Tax authorized in s. 125.0104(3), F. S., or their respective Destination Marketing Organizations. Respondents were given a list of 10 potential reasons why tourists visit the respondent's county and asked to rank them in order of importance, with 1 being highest. Results from the survey indicated that Destination Marketing Organizations in the major tourist markets do not consider film to be a significant influence on tourists' decisions to choose Florida as their vacation destination. The highest ranked features that attracted tourists were beaches, theme parks and retail/dining/nightlife (71.6 percent of the responses).

Due to the substantial marketing efforts made by governmental and private sources and the responses of the local destination marketing organizations who did not believe filmed locations impacted tourists' decisions, EDR did not include any economic benefit from film-induced tourism. Furthermore, what peer-reviewed literature there is on film-induced tourism suggests that to the extent it does occur, a very specific set of circumstances must exist. Even then, the impacts are generally localized and of such a small size that they would not significantly impact the analysis below.

The Entertainment Industry Sales Tax Exemption Program

The Entertainment Industry Sales Tax Exemption Program is available to "any production company engaged in this state in the production of motion pictures, made-for-TV motion pictures, television series, commercial advertising, music videos, or sound recordings…"[21] This program offers sales and use tax exemptions on:

- The fabrication labor used in set design and construction for qualified motion pictures;[22]
- Motion picture or video equipment and sound recording equipment that is purchased or leased for use in this state for certain entertainment production activities; [23]

---

[19] Macionis, Niki, "Understanding the Film-induced Tourist," In Frost, Warwick, Croy, Glen and Beeton, Sue (editors). International Tourism and Media Conference Proceedings. 24th-26th November 2004. Melbourne: Tourism Research Unit, Monash University, 2004: 95

[20] MNP LLP. "Economic and Social Impacts of the Florida Film and Entertainment Industry Financial Incentive Program," March 2013.

[21] Section 288.1258, F.S. This program was initially intended as "an incentive both to recruit film production businesses to bring their work to Florida and to retain such businesses in the state."

[22] Enacted in 1969, s. 212.06(1)(b), F.S.

[23] Enacted in 1983 as a refund, changed to an exemption in 1984, s. 212.08(5)(f), F.S. Property must be used exclusively as an integral part of the production activities in this state. The equipment must be depreciable with a useful life of at least 3 years. The exemption may also be extended to parts and accessories for qualified production equipment. Includes bull horns, cameras (and cables and connectors), software, dollies, lighting, sets, tents, video recorders, sound equipment, generators, wardrobes. Does not include make-up, meals, records, travel, vehicles, audio and video tapes, or film or location fees. http://dor.myflorida.com/dor/taxes/film_in_florida.html

- The sale of master tapes, records, films, or video tapes; [24] and
- The lease or rental of real property used as an integral part of the performance of qualified motion picture production services. [25]

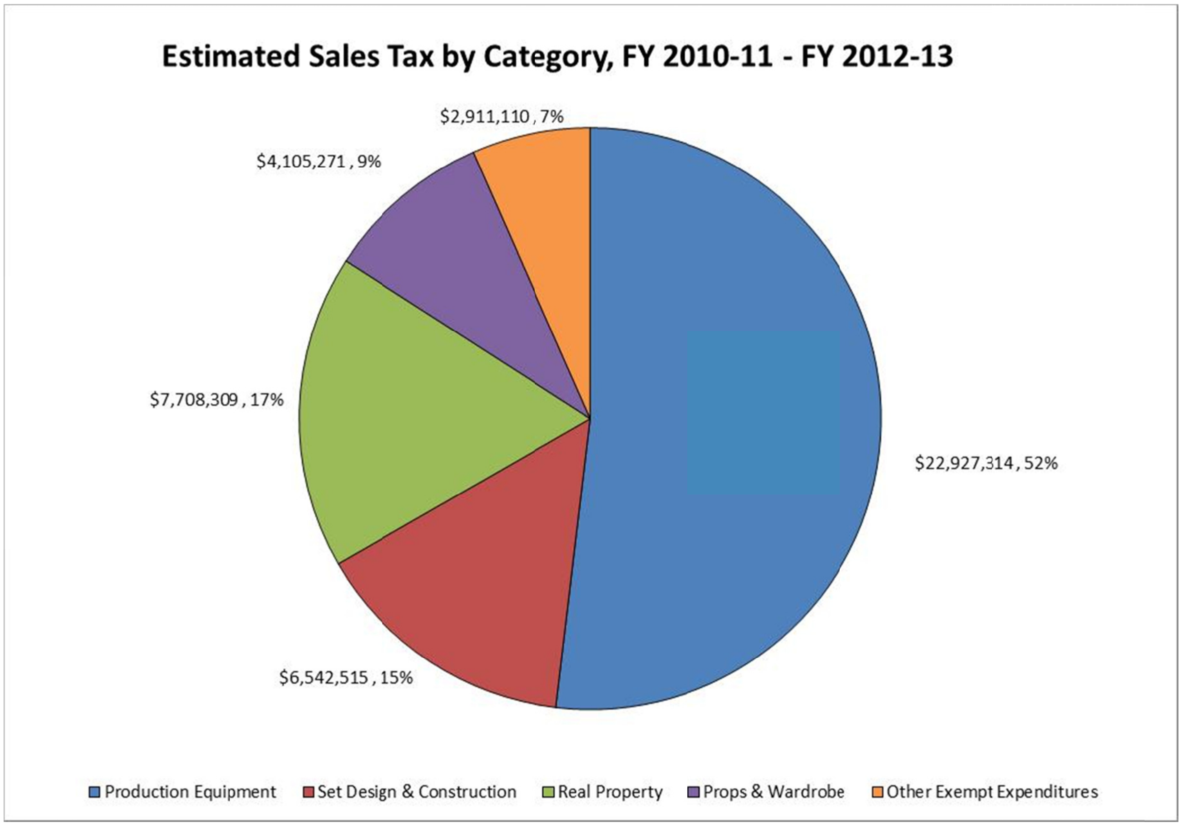
In 2000, the Legislature created a single application process to obtain a certificate of exemption from sales and use taxes. Qualified production companies may submit an application to DOR to be approved by the OFE. If the company has operated a business in Florida at a permanent address for at least 12 consecutive months, they may be eligible for designation as a qualified production company and be eligible for a 1-year certificate of exemption. Companies that do not qualify for the 1-year certificate, including out-of-state companies, may be may be eligible for a 90-day certificate of exemption.

Applications include an estimate of the planned purchases of exempt items. It is from these applications that OFE compiles an annual estimate of the value of the exemptions to qualified production companies, both in-state and out-of-state. Based on their applications, OFE has estimated that all qualified production companies received $44.5 million in exemptions between FY 2010-11 and 12-13.[26] Unlike, the FTC Program, production companies are not required to report the amount of purchases for which they received exemptions, after-the-fact.

[24] Enacted in 1984, s. 212.08(12), F.S. The sale or lease of master tapes or master records that are used by the recording industry in reproducing audio recordings are taxable only on the value of the blank tapes or records used as a medium to transfer the master tapes or records. Likewise, the sale or lease of master films and master video tapes that are used in reproducing visual images for showing on screens or television is taxable only on the value of the blank film or tape used as a medium to transfer the master films and tapes. The value of all the major cost components of making a master, such as artistic services, processing, and copyrights or royalties, is excluded from the taxable price of the sale or lease. This tax treatment is limited to sales or leases by a recording studio to the recording industry or by a motion picture or television studio to the motion picture or television production industry. http://dor.myflorida.com/dor/taxes/film_in_florida.html

[25] Enacted in 1987, s. 212.031(1)(a)9, F.S.

[26] Source: "Florida Office of Film and Entertainment, FY 2013/14 Annual Report," p. 9. There is no subsequent validation of purchases, whether more or less than the estimate submitted on the application.



The sales tax exemptions are also available to qualified production companies receiving tax credits through the FTC Program. Based on the qualified expenditures for that subset of companies, they may have received as much as $3.5 million in exemptions between FY 2010-11 and 2012-13. This number was based on the amount of exempt sales as a percentage of total production expenditures as reported on the applications. It was used in the model to prorate the output from those production companies that participated in both programs.

Sales Tax Exemption Data

This analysis provides a return on investment for the STE program from purchases made by qualified entertainment productions. However, there are limitations to the data that are not found in the tax credit incentives data. These limitations could greatly distort the results of the analysis, and the results should be reviewed with this in mind.

Sales tax exemptions are generally used to reduce the costs of household items or the transfer of goods between businesses. Exemptions are also provided for life necessities such as food and medicine, or to organizations that benefit the general public such as non-profits. Exemptions are also industry specific. Unlike tax credit incentives, the relevant exemptions are not contingent on any performance-based criteria such as job creation or capital investment.

Estimations of Expenditures

The STE data provided by the OFE is compiled from responses made by applicants for the exemption certificate. An exemption certificate is required to receive an exemption from sales tax on qualified purchases. These responses are estimates made by production companies of the expenditures they will make in the future.

The data provided by OFE for exemption expenditures is not audited or validated. The companies must simply reapply every year if they wish to continue receiving new certificates. This lack of information regarding the actual purchases could influence the validity of the results. Tax credit incentives data, which is audited, shows that between the initial estimate of expenditures and the audited expenditures, production companies overestimated their planned expenditures by 27 percent.[27]

But-For Assumptions
The ROI analysis should only include expenditure data from production companies that were induced to make purchases because of the exemption. Exemptions granted to companies that do not meet the but-for assumption represent a straight revenue loss to the state as those production companies would have made those purchases whether or not there was a sales tax exemption.

Given the program's design, this analysis assumes that the sales tax exemption program induces companies to locate activity in Florida and it attributes that activity to the existence of the exemption. However, that assumption would not hold true for long-term Florida companies. To account for companies that were already well established in Florida before the exemption program was enacted, only the expenditures from companies who indicated on their applications that they were established after 2000 were included.

Expenditures from companies that are reliant on Florida's markets or resources were excluded from the data as well.[28] These were expenditures from companies that are:

- Filming a commercial for a business or location in Florida (hospitals, theme parks, beaches), or
- Producing a live event in Florida such as sports or concerts.

The expenditure data not culled likely included some businesses that were dependent on Florida markets or resources, but an attempt was made to only capture expenditures from companies that appeared to be mobile and had the option of locating these productions in other states rather than Florida.

---

[27] Data provided by OFE.
[28] If a business' customers or clients are primarily based in Florida or the business is dependent on Florida resources to produce its products or services, the business is considered "market or resource dependent." Any new activity induced by incentives displaces existing employment, economic activity in or revenues to the state, as the demand for such products or services is driven by the in-state market. There is no net economic expansion, as existing businesses would likely shed jobs as their market share decreases. In contrast, a business is not considered market or resource dependant if it is likely that it exports a majority of its goods and services out of the state.

DESCRIPTION OF THE DATA

The law requires EDR and OPPAGA to analyze and evaluate the entertainment industry financial incentive (tax credit, or FTC) and sales tax exemption (STE) programs' performance over the previous three years.[29] This report includes Fiscal Years 2010-11, 2011-12 and 2012-13.

The Office of Film and Entertainment (OFE), Department of Economic Opportunity and the Department of Revenue were the primary sources of information for the review. These agencies were instructed to provide EDR with information for each project or business which received state dollars (whether an exemption or credit) during the three-year review period. Collectively, these projects comprise the universe. For the purpose of this analysis, the term "award" refers to the final authorization for the tax incentive, regardless of whether it has been taken.

When available, submitted information included the amount and timing of incentive(s) distributed to the business; the amount and timing of direct capital expenditures for the project; and the number of direct jobs and associated average wages. Only data related to the three-year review period was considered in the evaluation.

For the FTC program, OFE provided the following information:

- The number of productions awarded tax credits from FY 2010-11 through FY 2012-13.
- Total positions created by productions that completed their audit reviews and were awarded tax credits within the window of the analysis. Many of these positions were not full-time.
- Wages paid to Florida residents by certified productions that have completed their audit reviews and were awarded tax credits within the window of the analysis.
- Qualified expenditures for the productions that have completed their audit reviews and were awarded tax credits within the window of the analysis.
- The amount of tax credits that were awarded to productions that have completed their audit reviews within the window of the analysis. These may or may not reflect tax credits used on a tax return during the time period. All of the tax credits taken on a return during this time period were from companies who received the credit through a transfer.

[29] Section 288.0001, F.S., as created by s. 1, ch. 2013-39, Laws of Florida and s. 1, ch. 2013-42, Laws of Florida.

FILM TAX CREDIT PROGRAM DATA

	Digital Media & Video Game		Motion Picture, TV, Commercial		Total	
Eligible Wages						
FY 2010-2011	$	-	$	21,699,723	$	21,699,723
FY 2011-2012	$	31,829,912	$	23,041,761	$	54,871,673
FY 2012-2013	$	34,850,384	$	67,826,730	$	102,677,114
Grand Total	$	66,680,296	$	112,568,214	$	179,248,510
Non-Wage Qualified Expenditures						
FY 2010-2011	$	-	$	18,385,377	$	18,385,377
FY 2011-2012	$	6,313,755	$	17,557,477	$	23,871,232
FY 2012-2013	$	6,762,468	$	56,165,208	$	62,927,676
Grand Total	$	13,076,223	$	92,108,062	$	105,184,285
Total Qualified Expenditures						
FY 2010-2011	$	-	$	40,085,100	$	40,085,100
FY 2011-2012	$	38,143,667	$	40,599,238	$	78,742,905
FY 2012-2013	$	41,612,852	$	123,991,938	$	165,604,790
Grand Total	$	79,756,519	$	204,676,276	$	284,432,795
Tax Credits Awarded						
FY 2010-2011	$	-	$	10,823,293	$	10,823,293
FY 2011-2012	$	9,463,531	$	8,608,935	$	18,072,466
FY 2012-2013	$	10,304,371	$	28,081,939	$	38,386,310
Grand Total	$	19,767,902	$	47,514,167	$	67,282,069
Transferred Sales Tax Credits Used						
FY 2010-2011	$	-	$	-	$	-
FY 2011-2012	$	9,463,531	$	4,367,593	$	13,831,124
FY 2012-2013	$	10,184,821	$	19,308,219	$	29,493,040
Grand Total	$	19,648,352	$	23,675,812	$	43,324,164
	Sales Tax		**Corporate Income Tax**		**Total**	
Tax Credits Transferred						
FY 2010-2011	$	-	$	-	$	-
FY 2011-2012	$	15,047,944	$	4,698,027	$	19,745,971
FY 2012-2013	$	29,894,028	$	11,266,971	$	41,160,999
Grand Total	$	44,941,972	$	15,964,998	$	60,906,970
Transferred Tax Credits Used						
FY 2010-2011	$	-	$	-	$	-
FY 2011-2012	$	13,831,124	$	-	$	13,831,124
FY 2012-2013	$	29,493,040	$	-	$	29,493,040
Grand Total	$	43,324,164	$	-	$	43,324,164

For the STE program, DEO provided the data submitted by production companies that had received sales tax exemption certificates. This data reflects the estimates made by the production company before receiving their tax certificates.

The following applicants were approved during the window of the analysis:

- FY 10/11 – 871 applicants
- FY 11/12 – 815 applicants

- FY12/13 – 857 applicants

During Fiscal Year 2012-13, thirty-nine productions were awarded FTC incentives. Of the 39, 8 did not receive exemption certificates (7 were not eligible - digital media). Sixteen productions were eligible for twelve-month certificates and were able to use their certificate for expenditures that were unrelated to the projects receiving FTC incentives.

While not included in the analysis, sixty-six productions were awarded FTC incentives in Fiscal Year 2013-14. Of the 66, 9 did not receive exemption certificates (5 were not eligible - digital media). Twenty-eight productions were eligible for twelve-month certificates and were able to use their certificates for expenditures that were not limited to projects receiving the FTC incentives.

SALES TAX EXEMPTION PROGRAM DATA

	Total Wages	Total Non-Exempt Expenditures	Total Exempt Expenditures	Total Expenditures	Estimated Output	Estimated Exempt Sales Taxes
FY 10-11	596,324,573	163,694,155	265,102,506	1,025,121,235	1,195,003,632	15,906,156
FY 11-12	610,195,707	219,139,966	224,605,814	1,053,941,487	1,218,574,200	13,476,357
FY 12-13	692,133,228	130,399,070	246,866,989	1,069,399,288	1,232,880,806	14,812,023
	1,898,653,508	**513,233,192**	**736,575,309**	**3,148,462,009**	**3,646,458,638**	**44,194,536**

METHODOLOGY

EDR used the Statewide Model to estimate the return on investment for the programs under review. The Statewide Model is a dynamic computable general equilibrium (CGE) model that simulates Florida's economy and government finances.[30] Among other things, it captures the indirect and induced economic activity resulting from the direct project effects. This is accomplished by using large amounts of data specific to the Florida economy and fiscal structure. Mathematical equations[31] are used to account for the relationships (linkages and interactions) between the various economic agents, as well as likely responses by businesses and households to changes in the economy.[32] The model also has the ability to estimate the impact of economic changes on state revenue collections and state expenditures in order to maintain a balanced budget by fiscal year.

When using the Statewide Model to evaluate economic programs, the model is "shocked"[33] using static analysis to develop the initial or direct effects attributable to the projects funded by the incentives. In this analysis, direct effects are essentially the changes experienced by the businesses receiving the incentives and the transfer of state dollars. For both programs, the combined annual direct effects ("shocks") took the form of:

- Removal of the incentive payments from the state budget, with a corresponding award to businesses as subsidies to production or a reduction in the after-tax price of a commodity.
- Increased output based on expenditures and payroll.[34]

The model was then used to estimate the additional—indirect and induced—economic effects generated by the projects, as well as the supply-side responses to the new activity, where the supply-side responses are changes in investment and labor supply arising from the new activity. Indirect effects are the changes in employment, income, and output by local supplier industries that provide goods and services to support the direct economic activity. Induced effects are the changes in spending by households whose income is affected by the direct and indirect activity.

All of these effects can be measured by changes (relative to the baseline) in the following outcomes:

---

[30] The statewide economic model was developed using GEMPACK software with the assistance of the Centre of Policy Studies (CoPS) at Victoria University (Melbourne, Australia).
[31] These equations represent the behavioral responses to economic stimuli.
[32] The business reactions simulate the supply-side responses to the new activity (e.g., changes in investment and labor supply).
[33] In economics, a shock typically refers to an unexpected or unpredictable event that affects the economy, either positive or negative. However, as used above, a shock refers to some action that affects the current equilibrium or baseline path of the economy. It can be something that affects demand, such as a shift in the export demand equation; or, it could be something that affects the price of a commodity or factor of production, such as a change in tax rates. In the current analyses, a shock is imposed to simulate the introduction of incentives into the economy.
[34] The increased output was calculated by taking the output-to-expenses ratio and multiplying by total expenses. This ratio was calculated from industry statistics as reported by IBISWorld. In the case of the Sales Tax Exemption program, the expenses were taken from the applications supplied by the businesses receiving the certificates. The reported expenses included both exempt and nonexempt expenditures (including wages). In the case of the Entertainment Industry Financial Incentive program, only certified "qualified expenditures" were reported. An adjustment was made to include nonqualified expenses, assumed to be primarily commodities and services purchased from out-of-state. This adjusted expenditure estimate was then multiplied by the output-to-expenditures ratio.

- State government revenues and expenditures
- Jobs
- Personal income
- Florida Gross Domestic Product
- Gross output
- Household consumption
- Investment
- Population

EDR’s calculation of the return on investment used the model’s estimate of net state revenues and expenditures. Other required measures for this report include the number of jobs created, the increase or decrease in personal income, and the impact on gross state product, all of which are included in the model results.

KEY ASSUMPTIONS

The following key assumptions are used in the Statewide Model to determine the outcomes of the programs under review. Some of the assumptions are used to resolve ambiguities in the literature, while others conform to the protocols and procedures adopted for the Statewide Model.

1. The analysis assumes that state incentives were the determining factor in business location decisions, since the program was created and designed to attract new business activity to the state. The analysis further assumes that for bundled projects,[35] the total value of the incentive package was the deciding factor for the business, not the individual components of the package.

2. The analysis assumes all data provided by DEO, DOR, and other state entities related to projects and tax incentives was complete and accurate. The data was not independently audited or verified by EDR; however, data discrepancies between agencies were addressed.

3. The analysis assumes businesses received the full value of the state incentives, whether or not those who transferred the credits did so at a discount, and that related costs due to federal taxes or consultant fees are immaterial to the decision making process.

4. The analysis assumes that given the time span under review, applying discount rates would not prove material to the outcome.

5. The analysis assumes that any expenditure made for incentives is a redirection from the general market basket of goods and services purchased by the state. Similarly, any revenue gains from increased business activities are fully spent by the state.

6. The analysis assumes the relevant geographic region is the whole state, not individual counties or regions. The Statewide Model does not recognize that any economic benefit arises from intrastate relocation. However, the model accounts and makes adjustments for the fact that industries within the state cannot supply all of the goods, services, capital, and labor needed to produce the state's output.

7. The analysis assumes that businesses treated the incentives as subsidies. The subsidies lowered the cost of production for each individual firm.

8. The analysis assumes distribution of capital purchases by each business was the same as the industry in which it operates. This assumption was made because data was not available regarding the specific capital purchases associated with each project. It is also assumed that the businesses within a program were not large enough to affect the rate of return on capital within the industries in which the businesses operated.

9. The analysis assumes that the output from projects did not displace the market for goods and services of existing Florida businesses. To do this, output associated with the businesses was

[35] The only bundling that was assumed to take place was the combination of the Sales Tax Exemption and Film Tax Credit programs. No information was available as to the possible local incentives offered in conjunction with any state incentives.

assumed to be exported to the rest of the world. The rest of the world is defined as other states or the international market.

PROGRAM FINDINGS

In the pages that follow, each incentive program is preceded by diagnostic tables describing the composition and statistics of the projects under review by scenario. Key terms used in the tables are described below:

State Payments Used in Analysis – Represents the amount of state payments made to the program by fiscal year.

Personal Income (Nominal $(M)) – Income received by persons from all sources. It includes income received from participation in production as well as from government and business transfer payments. It is the sum of compensation of employees (received), supplements to wages and salaries, proprietors' income with inventory valuation adjustment (IVA) and capital consumption adjustment (CCAdj), rental income of persons with CCAdj, personal income receipts on assets, and personal current transfer receipts, less contributions for government social insurance.

Real Disposable Personal Income (Fixed 2009 $(M)) – Total after-tax income received by persons; it is the income available to persons for spending or saving.

Real Gross Domestic Product (Fixed 2009 $(M)) – A measurement of the state's output; it is the sum of value added from all industries in the state. GDP by state is the state counterpart to the Nation's gross domestic product.

Consumption by Households and Government (Fixed 2009 $(M)) –The goods and services purchased by persons plus expenditures by governments consisting of compensation of general government employees, consumption of fixed capital (CFC), and intermediate purchases of goods and services less sales to other sectors and own-account production of structures and software. It excludes current transactions of government enterprises, interest paid or received by government, and subsidies.

Real Output (Fixed 2009 $(M)) – Consists of sales, or receipts, and other operating income, plus commodity taxes and changes in inventories.

Total Employment (Jobs) – This comprises estimates of the number of jobs, full time plus part time, by place of work. Full time and part time jobs are counted at equal weight. Employees, sole proprietors, and active partners are included, but unpaid family workers and volunteers are not included.

Population (Persons) – Reflects first of year estimates of people, includes survivors from the previous year, births, special populations, and three types of migrants (economic, international, and retired).

Analysis and Findings

For this analysis, the Office of Film and Entertainment (OFE) provided information for the estimated qualified expenditures for productions participating in the FTC program by type of project. In addition information was provided on tax incentives awarded, transferred and used by these projects.

While the qualified production expenditures represent a significant portion of the total value of the commodity produced by these projects, they do not account for the nonqualified expenditures, particularly return-to-capital and out-of-state purchases. To better estimate the value of output produced by these projects, information from IBISWorld,[36] an industry-based research provider, was used to estimate total value of output from known expenditures. Additionally, an estimate of out-of-state nonqualified expenditures was produced based on an analysis of the underlying CGE base data on the relationship between in-state and out-of-state purchases of intermediate inputs.

OFE provided information on projects receiving awards during the three-year window of the analysis. They provided information on qualified expenditures, including a breakout of wages. Projects make additional expenditures which do not count towards the calculation of the award. To better reflect total spending, an estimate of additional "non-qualified" expenditures was made. It was assumed that most of this spending would take the form of purchases from outside the state. The base data of the state's dynamic economic model show that between 18-31% of purchased inputs come from outside the state for the industries under analysis. A figure of 25% was used to estimate non-qualified expenditures—a mid-range figure.[37] A further adjustment was made to the expenditures to include a measure of return-to-capital. This acts to transform the estimated expenditures to a market value of output (revenues) versus costs of production. This is a necessary transformation to correctly run the scenarios with the state's dynamic economic model. This final adjustment was based on information taken from the IBISWorld report referenced above.

It was further assumed that all activity associated with the film tax credit incentive program was new to the state. That is, it would not have occurred absent the incentives. In some instances, this most likely is an erroneous assumption. There may have been some projects that were market or resource dependent; that is, the production was for Florida markets or was dependent on filming in a Florida-specific location. To the extent that some activity would have taken place whether or not the incentives were available, or that the activity displaces local non-incentivized activity, the following analysis will overstate the benefits to Florida.

[36] IBISWorld – Industry Market Research, accessed 11/25/14.

[37] There is an incentive to purchase inputs that may typically come from out-of-state from local suppliers since the item would be more likely to be included in qualified expenditures for purposes of calculating the award.

FTC SCENARIO 1 – TAX CREDITS AWARDED AND USED

Statewide Economic Model Impact Projections of the Florida Film & Entertainment Industry Financial Incentive Program (Credits Used)

		FY2010 - 2011	FY2011 - 2012	FY2012 - 2013	Total		Average per Year
Personal Income	Nominal $ (M)	103.6	224.5	262.2	**590.3**		**196.8**
Real Disposable Personal Income	Fixed 2009 $ (M)	87.2	185.4	213.5	**486.0**		**162.0**
Real Gross Domestic Product	Fixed 2009 $ (M)	89.5	189.2	216.8	**495.5**		**165.2**
Consumption by Households and Government	Fixed 2009 $ (M)	63.2	128.0	146.5	**337.7**		**112.6**
Real Output	Fixed 2009 $ (M)	172.9	366.0	414.1	**952.9**		**317.6**
		FY2010 - 2011	**FY2011 - 2012**	**FY2012 - 2013**	**Minimum**	**Maximum**	**Average per Year**
Total Employment	Jobs	564	1,056	1,016	***564***	1,056	**878**
Population	Persons	80	368	944	***80***	944	**464**

Category	Units	FY2010 - 2011	FY2011 - 2012	FY2012 - 2013	Total		Average per Year
TOTAL NET STATE REVENUES	**Nominal $ (M)**	**3.2**	**7.1**	**8.3**	***18.6***		**6.2**
STATE INCENTIVES	**Nominal $ (M)**	**0.0**	**13.8**	**29.5**	***43.3***		**14.4**

RETURN ON INVESTMENT 0.43

Under both FTC scenarios, there was a total of $284.4 million in qualified expenditures during the three fiscal years of the analysis. It is estimated that there was an additional $35.1 million in non-qualified expenditures. Of the total expenditures of $319.5 million, it is estimated that there was $55.1 million in taxable expenditures that were exempt from sales taxes under the STE program. Total expenditures are estimated to result in an increase in state output in the digital media, video game, motion picture and sound industries of $364.0 million dollars. Due to "bundling" the programs—FTC and STE programs—not all of this increased output can be assumed to have occurred solely because of the FTC credits. Under the assumption that a dollar saved in sales taxes on exempt purchases has the same inducement as a dollar received in tax credits, $17.8 million of the estimated output was allocated to the STE program.

The state's incentives during the three-year window are broken down into credits awarded based on "qualified" expenditures that have been awarded by OFE and credits actually used. There were $67.3 million in credits awarded within the window. Of these most were transferred—that is, sold—to a second party. There were $60.9 million in credits, or 90.5% of those awarded, that were transferred. Of those transferred, $44.9 million, or 73.7%, were sales tax credits and $16.0 million, or 26.3%, were corporate tax credits.[38] No credits were used within the window by the original recipient, and none of the corporate tax credits transferred were actually used within the period of analysis.

FTC scenario 1 assumes the cost of the program is measured by the tax credits used during the three year window. This scenario reflects the lag between the time a credit is awarded to the time when the

[38] The credits are usually transferred (sold) at a discount. According to anecdotal information provided by OFE, who are not party to the transfer, the credits are sold for anywhere from 85 to 98 cents on the dollar. Florida statute allows for the state to purchase back the credits for 90 cents on the dollar; however, the repurchase is subject to the Legislature first appropriating funds for such a purpose, which, to date, it has not done.

credit is actually used against a tax obligation. While the tax credit program began at the start of Fiscal Year 2010-11, credits were not used until Fiscal Year 2011-12

FTC Scenario 1 resulted in an ROI of 0.43. While the ROI is positive, the program only returns forty-three cents in tax revenues for every dollar of tax credits used.

However, the program does have broader economic benefits to the state as a whole. Personal income (in nominal dollars) is on average $196.8 million per year higher during the period, and real GDP within the state is $165.2 million (in 2009 dollars) higher per year. In addition, there are an average of 878 more jobs each year during the analysis period. Most of these are filled by current residents, but some are filled by new residents attracted to the state by the increased economic activity—Florida resident population is on average 464 persons higher per year than it would be in the absence of the program.

FTC SCENARIO 2 – TAX CREDITS AWARDED

Statewide Economic Model Impact Projections of the Florida Film & Entertainment Industry Financial Incentive Program (Credits Awarded)

		FY2010 - 2011	FY2011 - 2012	FY2012 - 2013	Total		Average per Year
Personal Income	Nominal $ (M)	84.0	202.6	244.0	**530.6**		**176.9**
Real Disposable Personal Income	Fixed 2009 $ (M)	71.3	168.0	199.2	**438.5**		**146.2**
Real Gross Domestic Product	Fixed 2009 $ (M)	70.3	168.6	200.4	**439.3**		**146.4**
Consumption by Households and Government	Fixed 2009 $ (M)	39.6	102.3	126.3	**268.1**		**89.4**
Real Output	Fixed 2009 $ (M)	143.1	334.7	389.7	**867.5**		**289.2**

		FY2010 - 2011	FY2011 - 2012	FY2012 - 2013	Minimum	Maximum	Average per Year
Total Employment	Jobs	411	916	926	***411***	926	**751**
Population	Persons	44	248	744	***44***	744	**345**

Category	Units	FY2010 - 2011	FY2011 - 2012	FY2012 - 2013	Total		Average per Year
TOTAL NET STATE REVENUES	**Nominal $ (M)**	**2.8**	**6.5**	**7.8**	***17.1***		**5.7**
STATE INCENTIVES	**Nominal $ (M)**	**10.8**	**18.1**	**38.4**	***67.3***		**22.4**

RETURN ON INVESTMENT 0.25

FTC scenario 2 assumes the cost of the program is measured by the tax credits awarded during the three-year window, and includes the full costs of these credits to the state, whether or not they were used during the period. Essentially, it is assumed that the awarded credits are used at the time they are awarded. This scenario may provide a more accurate picture of the ROI for a mature program than FTC scenario 1, which incorporates the lag time from the commencement of the program to when the tax credits were actually used. FTC scenario 2 resulted in an ROI of 0.25. While positive, the program only returns twenty-five cents in tax revenues for every dollar of tax credits awarded.

As with FTC scenario 1, the program does have broader economic benefits to the state as a whole. Personal income (in nominal dollars) is on average $176.9 million per year higher during the period, and real GDP within the state is $146.4 million (in 2009 dollars) higher per year. In addition, there are an average of 751 more jobs each year during the analysis period. Most of these are filled by current residents, but some are filled by new residents attracted to the state by the increased economic activity—Florida resident population is on average 345 persons higher per year than it would be in the absence of the program.

Sales Tax Exemption (STE) Program Scenario

Statewide Economic Model Impact Projections of the Florida Film & Entertainment Industry Sales Tax Exemption Program

		FY2010 - 2011	FY2011 - 2012	FY2012 - 2013	Total		Average per Year
Personal Income	Nominal $ (M)	583.4	783.2	601.5	**1,968.1**		**656.0**
Real Disposable Personal Income	Fixed 2009 $ (M)	489.5	646.8	487.7	**1,624.0**		**541.3**
Real Gross Domestic Product	Fixed 2009 $ (M)	515.0	672.2	492.0	**1,679.2**		**559.7**
Consumption by Households and Government	Fixed 2009 $ (M)	376.9	505.9	383.3	**1,266.2**		**422.1**
Real Output	Fixed 2009 $ (M)	960.3	1,229.4	878.0	**3,067.7**		**1,022.6**
		FY2010 - 2011	**FY2011 - 2012**	**FY2012 - 2013**	**Minimum**	**Maximum**	**Average per Year**
Total Employment	Jobs	3,601	4,056	2,112	***2,112***	4,056	**3,256**
Population	Persons	352	1,952	3,952	***352***	3,952	**2,085**

Category	Units	FY2010 - 2011	FY2011 - 2012	FY2012 - 2013	Total		Average per Year
TOTAL NET STATE REVENUES	**Nominal $ (M)**	**8.5**	**9.4**	**6.0**	***24.0***		**8.0**
STATE INCENTIVES	**Nominal $ (M)**	**15.9**	**13.5**	**14.8**	***44.2***		**14.7**

RETURN ON INVESTMENT 0.54

While the STE program had an estimated $736.6 million in tax-exempt spending at a cost of $44.2 million in foregone sales tax revenue and an estimated $3.15 billion in total expenditures and a corresponding $3.65 billion in output, this translates into just $1.02 billion in new activity per year.

Approximately $2.37 billion in output would have occurred even without the tax exemptions. Most of this is the estimated output of firms that had a Florida presence before 2000, and much of the rest of the estimated output would have occurred anyway—it did not meet the “but for” assumption because of market dependency. Another $254 million of estimated output was allocated to the Film Tax Incentive program due to “bundling” with the FTC tax incentives.

While the output of businesses receiving sales tax exemption certificates is not directly addressed by the analysis, the impact of the reduced cost of inputs is included. That is, the fact that the gross price of the inputs purchased by the businesses is lower because of the exempt nature of the purchases does have a positive effect on the cost of production, and this is accounted for in the scenario.

The STE program had an estimated ROI of 0.54. That is, for every dollar of foregone sales tax collections the program returned fifty-four cents in other state revenue collections.

Similar to the FTC program, this program also has broader economic benefits to the state as a whole. Personal income (in nominal dollars) is on average $656.0 million per year higher during the period, and real GDP within the state is $559.7 million (in 2009 dollars) higher per year. In addition, there are an average of 3,256 more jobs each year during the analysis period. Most of these are filled by current residents, but some are filled by new residents attracted to the state by the increased economic activity—Florida resident population is on average 2,085 persons higher per year than it would be in the absence of the program.

Conclusion

The analysis shows that both the FTC and the STE programs have positive ROIs, although neither generates sufficient tax revenues to offset the cost of the programs.[39] In addition, both programs contributed to the broader economic health of the Florida economy, producing additional income, state gross domestic product (GDP) and jobs. However, caution should be used in interpreting these results.

The results are sensitive to the underlying assumptions—particularly the assumption that much of this activity is new to the state. While an effort was made to exclude activity in the STE program that clearly did not meet the "but for" assumption, all activity under the FTC program was assumed to be new to the state. Additional scenarios were run to test the sensitivity of the ROIs to the "but for" assumption. In the case of the FTC scenario where the ROI is measured against credits awarded: if 25% of the activity was assumed not to meet the "but for" assumption, the ROI dropped from 0.25 to 0.17. In the STE scenario: if the new activity was reduced by 40%, the ROI turned negative—the exemption actually cost more than the static amount of foregone sales tax collections.

There are also issues that potentially produce downward pressure on the two programs' ROIs. First, neither program requires capital investments be reported except to the extent that they meet the requirement for being "qualified expenditures." Capital investments may be captured if they are qualified expenditures in the FTC program or if they are within an exempt expenditure category in the STE program. As reported in last year's incentives program report, required capital expenditures are a way to enhance the ROI of a program. If there were capital investments which were not reported by the applicants of either program, including that information in the analyses would have positively affected the programs' ROIs.

Another issue that affects the program's efficiency, if not the ROI, is the transferability of credits in the FTC program. While transferability of credits is designed to produce ready cash for applicants, the recipient projects do not receive the full benefit of the award when the credits are sold at a discount. As indicated earlier, most awards are transferred (sold) to a second party. Additionally, transferability of credits may introduce economic inefficiencies to the extent that the reduced cost may cause the purchasing entity to engage in some production activity the state has no interest in encouraging. Also, to the extent that the transfer of credits takes place at a discount, the FTC program could be funded under a grant program at the discounted value of the credits and maintain the same level of activity. This analysis does not assume that any discounting is taking place, which overstates the true cost of the program relative to a pure grant program and, thereby, understates the maximum ROI for the same level of activity due to the increased economic efficiency of a grant program.

[39] Two additional scenarios were run to test whether there existed a difference between the ROIs for "digital media and video games" and "film and sound." Both scenarios had similar levels of output per dollar of credits awarded: $4.67 and $5.72, respectively. This resulted in both scenarios producing similar ROIs: 0.248 for "digital media and video games;" and 0.255 for "film and sound." It may be important to note that digital media is ineligible for the STE program, which positively affects their ROI.

APPENDIX

Literature Review Regarding the Impact of State Film And Related Entertainment Incentive Programs

INTRODUCTION

Historically, California and New York have been the centers of American film, television and related entertainment productions. These cities provided ready access to the necessary industry infrastructure,[40] talent, studio and many outdoor filming locations. For "economic runaways," the costs of labor intensive, large-scale productions were a significant factor in choosing other locations. For "creative runaways," the context of the film required "productions staged abroad for the purpose of location authenticity…"[41]

In the 1970s and 80s, Yale (2012, 155) observes that "several U.S. states not traditionally associated with film production began to aggressively market themselves to Hollywood producers as amenable production locations." While most of the post-production work remained in California, the combination of access to non-union labor and eager accommodation by locals proved to make other states viable filming locations.

In the 1990s, a combination of factors contributed to the increased exodus of filming and post-production work from California and New York. First, other countries began to court American productions with economic incentives and access to production and post-production staff and facilities. Canadian sites provided production companies with lower labor costs and a favorable currency exchange rate. In addition, Canada and its provinces offered federal and regional tax incentives.

Taking a cue from Canada, other states followed suit. Louisiana began to offer a lucrative film production subsidy[42] in 2002, and Pennsylvania, New York and New Mexico followed in 2004. Most of the other states, the District of Columbia and Puerto Rico, followed thereafter. The Tax Foundation reports that total state incentives increased from $2 million in 2003 to $68 million in 2004, and to $1.3

---

[40] See Christopherson and Rightor (2010, 345-346) for a description of film industry infrastructure, the "critical components that sustain" the industry.

[41] Yale (2012, 35) For a broad, critical examination of the history of runaway productions, see Camille Yale's dissertation: "Runaway Film Production: A Critical History of Hollywood's Outsourcing Discourse." Dissertation, University of Illinois at Urbana-Champaign, 2010. Ideals.illinois. University of Illinois at Urbana-Champaign. Web. 30 Oct. 2012. https://www.ideals.illinois.edu/bitstream/handle/2142/18481/Yale_Camille.pdf?sequence=1
Adrian McDonald, now the lead researcher for FilmL.A., which is Los Angeles' regional film office, has published two articles in peer-reviewed journals on the issue of runaway productions. See McDonald, Adrian "Through the Looking Glass: Runaway Productions and "Hollywood Economics," 9 U. of Pennsylvania Journal on Labor and Employment Law (2007: 879-949). https://www.law.upenn.edu/journals/jbl/articles/volume9/issue4/McDonald9U.Pa.J.Lab.&Emp.L.879(2007).pdf
McDonald, Adrian, "Down the Rabbit Hole: The Madness of State Film Incentives As a "Solution" To Runaway Production" U. Of Pennsylvania Journal Of Business Law [Vol. 14:1, 2011], 85-165. https://www.law.upenn.edu/live/files/156-mcdonald14upajbusl852011pdf

[42] The terms subsidy and incentive are used interchangeably in this review. Incentives are public subsidies intended to induce an economic activity or capital investment by a private business in a jurisdiction in which such activity or investment would not otherwise take place. Generally, economic development subsidies are an investment of public resources (whether budgeted or from foregone revenue) with an anticipated return on investment to the public treasury, as well as an indirect benefit to the general public. While subsidies still constitute a transfer of wealth from the class of general taxpayers to individual businesses, such transfers are intended to expand the state's economic infrastructure and wealth-creation capacity.

billion in 2011.[43] A recent report by the Office of Policy Analysis, Maryland Department of Legislative Services (MD OPA 2014, 1) finds that:

> "…the costs of film incentives to states has risen dramatically as a result of both the increase in the number of states offering incentives and increases in the generosity of programs as state try to remain competitive with each other."

Similarly, Kathy Cobb (2006, 1), writing for The Federal Reserve Bank of Minneapolis, observes:

> "… so-called runaway production has since set off a chain reaction competition among U.S. states, with each giving the economic red-carpet treatment to the film industry with the goal of creating good-paying jobs, increased local consumption and some free wide-screen publicity about the landscape or urban milieu that might encourage more tourism."

Now, film production has transformed from "an exclusive and centralized base to a global network of production sites."[44]

As the costs of these state incentive programs have escalated, their cost-effectiveness has been questioned. Subsidy proponents[45] assert that state film incentives spur economic activity with substantial benefits to the state and area economies. Their economic impact studies[46] typically have several themes in common. First, subsidies are a cost-effective strategy to create jobs in a clean, high-wage industry and to develop film and related entertainment industries in the state. Second, local productions encourage related tourism activity and promote civic pride, and through association make areas more attractive places to live and work. Third, incentive program costs are recovered from increased tax revenue from the direct, indirect and induced economic activity related to film productions, as well as related film-induced tourism. And finally, the return on investment (ROI)[47] to the state more than offsets program costs.

Independent analysts[48] challenged these assertions. In his review of economic impact studies, David Zin, Chief Economist for the Michigan Senate Fiscal Agency (2010, 26), observes that:

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

Cornell University professor Susan Christopherson and Ned Rightor (2010, 344) agree, and find that:

---

[43] Henchman (2011, 4)

[44] Robyn and David (2012, 4) quoting Greg Elmer and Mike Gasher, "Introduction: Catching Up to Runaway Productions," in *Contracting Out Hollywood*, Greg Elmer and Mike Gasher, eds. (Lanham, MD: Rowman & Littlefield, 2005).

[45] For this review, subsidy proponents include those affiliated with the film industry and those representing state and local film offices, whose responsibilities include promotion and support of the industry in their respective jurisdictions.

[46] The most cited economic impact studies reflecting this view have been produced by Ernst & Young, HR&A Advisors, Inc., and MNP, LLP (Meyers Norris & Penny. LLP).

[47] ROI is the measure of tangible financial gains or losses to state (or other government) revenues. It is calculated by summing state revenues generated by a program less state expenditure invested in the program, and dividing that calculation by the state's investment.

[48] For this review, independent analysts include academics and researchers working independent of subsidy proponents, to include state officials (agency legislative analysts or economists) and economists commissioned by independent analysts.

> "Studies done by State officials, including legislative analysts and departments of revenue, all indicate a poor return on investment. In response to these fiscal analyses, industry supporters have paid for and promoted counter-studies that justify tax subsidies on the basis that broader impacts benefitting the state economy are stimulated by the subsidies… Differences in focus, in the assumptions underlying the analysis, in the data used, and in the time periods analyzed, combine to produce studies that reach very different conclusions."

In testimony before committees of the California State Assembly in 2012, Mark Robyn, Staff Economist with the Tax Foundation, stated that:

> "There are many studies and statistics that claim to show that film tax credits provide an economic benefit for states. But unfortunately, the economic effects of film tax credits are often overstated and many costs are left out of the equation all together."[49]

The purpose of this review is to:

- Provide an overview of state film and related entertainment incentive programs;
- Review independent research which identifies some of the more common deficiencies in economic analyses, as well as state program features that hurt the ROI; and
- List the independent research showing that film subsidies fail to generate a return on investment sufficient to cover the cost.

OVERVIEW OF STATE INCENTIVE PROGRAMS

As of March 2014, the National Conference of State Legislatures notes that thirty-nine states and Puerto Rico offer some type of film incentive. Additionally:

> "…several states including Arizona, Idaho, Indiana, Iowa, Kansas, Missouri and Wisconsin have ended their incentive programs, or have not included funding for the programs in upcoming budgets. Connecticut suspended its incentives for film production, but maintains tax credits for other types of media. Other states have pared back their incentives packages, reducing the overall rebate or credit a production can claim. At the same time, some states, such as Hawaii, have increased their allocations for film incentive programs, increasing the credit or rebate amount production companies can receive."[50]

In August 2014, North Carolina replaced its tax credit program with a grant program with significantly reduced funding. More recently New York extended its $420 million annual allocation of tax credits through 2019[51] while Michigan and New Mexico have recently scaled back their incentives.

---

[49] Mark Robyn, Staff Economist, Tax Foundation, Joint Oversight Hearing: the Committee on Revenue and Taxation and the Committee on Arts, Entertainment, Sports, Tourism, and Internet Media, March 21, 2011L.

[50] As of March 28, 2014. http://www.ncsl.org/research/fiscal-policy/state-film-production-incentives-and-programs.aspx Nebraska and Vermont only offer sales tax exemptions, and North Dakota has a general income tax exemption for which film productions may qualify. This website also includes links to each state incentive program, from which this general overview was compiled.

[51] http://www.latimes.com/entertainment/envelope/cotown/la-et-ct-fi-film-tax-credits-20140831-story.html#page=1 http://www.nyc.gov/html/film/html/production_resources/tax_credit_info.shtml

Also, in August 2014, California made major program changes, to include increasing annual program funding from $100 million to $330 million and expanding access to big-budget feature films.[52]

Most state film incentive programs provide reimbursement in the form of grants[53] or tax credits[54] for qualified production or capital expenditures. Some states offer tax exemptions[55] on qualified production or capital expenditures; workforce training subsidies; and production loans. Local governments may also offer services or financial incentives, often in combination with state incentives. State and local film offices market these services, incentives and filming locations, and provide other types of assistance to encourage production companies to select their respective jurisdictions.

Of the thirty-nine states and Puerto Rico, 20 offer grants, 23 offer tax credits (12 states allow the credits to be monetized by selling then to entities with tax obligations, and 9 states will buy-back the credits if the production company has insufficient tax obligations); and 22 states offer tax exemptions on production-related expenditures. Some states offer the full range of these incentives.[56]

While many programs were initially enacted for motion pictures, states incentives are now available for a variety of related entertainment productions: television programs, documentaries, commercials, music videos, and digital media (video games). Some states target, or limit a percentage of total program awards, to specific types of productions. Some tax credit programs have statutory caps. Grant programs are typically limited by annual appropriation.

Qualified expenditures for reimbursement or exemption range considerably from state to state. Many programs limit reimbursement to in-state purchases of goods or services from state-registered companies. In some states, capital investments in building or equipment are qualified expenditures. Many states offer higher reimbursement rates for hiring of state residents.

Finally, the magnitude of these financial incentives varies considerably from state to state, and fluctuates in response to evolving state goals.[57] Most states offer some type of base rate, with increases for using resident labor. Alaska currently offers the highest reimbursement rate, up to 58 percent of qualified expenditures. Illinois trails at up to 45 percent, the District of Columbia follows at 42 percent and Puerto Rico at up to 40 percent. Six states offer up to 35 percent: Alabama, Louisiana, Mississippi, New York, Ohio and Washington. Connecticut and Florida offer up to 30 percent reimbursement.

SUMMARY OF INDEPENDENT ASSESSMENTS

Independent analysts have challenged the methodology and conclusions reached by proponents of state film incentive programs. Generally, Jennifer Weiner (2009c, 33), policy analyst for the Federal Reserve of Boston, offers that:

[52] http://www.film.ca.gov/Incentives.htm
[53] In this context, grants are cash awards for certain qualified expenditures by production companies.
[54] Tax credits provide a reduction in taxes due, after verification that statutory conditions or contractual terms have been met.
[55] Tax exemptions provide freedom from payment of taxes normally applied to certain business activities.
[56] See TABLE 2: 2014 State Film Incentives, by Type, after the Conclusion.
[57] Cast and Crew Entertainment Services maintains a website with current information regarding state financial incentives, from which the following information was gathered. See http://www.castandcrew.com/forms/CC2014FallTIPMap.pdf

> "…methodologies and results of any study should be viewed with a critical eye, (as) assumptions by individual researchers can strongly influence the economic and fiscal impact they find. Indeed, studies showing the largest positive impacts from business tax credits often suffer from problematic approaches…"

The following is a brief overview of some of the more common deficiencies and "problematic approaches" in proponent economic analyses, as identified by independent analysts. These include:

- Failure to calculate the return on investment to the state;
- Failure to consider opportunity costs;
- Overstating employment outcomes;
- Failure to account for flight of capital out-of-state;
- Attributing all in-state film-related activities to incentives;
- Including gains in local revenues in assessments of state-funded incentives; and
- Over-attributing economic outcomes to film-induced tourism.

Failure to Calculate the Return on Investment to the State

Some economic impact studies of film incentive programs developed by proponents have reported only the private gains in economic activity, but not the actual return to the state. In context, a measure of economic activity may be useful information, but in isolation it leads to misinterpretation. David Zin (2010, 30-31), Economist with the Michigan Senate Fiscal Agency, illustrates this in his review of two years' distributions from Michigan's film incentive program:

> "The $86.0 million in credits is a public sector impact and reflects the loss of revenue experienced by the state budget. The $282.0 million in expenditure (or economic activity, or output, depending on how it is presented) represents a private sector impact and reflects the increase in economic activity experienced by employees and businesses directly associated with the film production (and, depending on the report, inclusive of the "multiplier effects"). Readers often will interpret the figures to mean "the state received $3.28 back for every dollar it spent" because the state spent $86.0 million in credits and there was a positive result of $282.0 million on the economy. This sort of analysis is correct--if the reader is examining the impact of the program on the private economy. But, using this example, a $3.28 return to the private economy does not equate to a $3.28 return to the state government."

Zin further offers that the only way the state could "break even" on this economic activity would be to impose "an average state tax rate of approximately 30.0%," which could generate $86.0 million in tax revenue. He concludes that this is unlikely to happen, as "[n]o state exhibits such a high average effective tax rate." The opportunity to recoup state incentive awards is further diminished because many states exempt production-related expenditures from state sales tax, and a few states do not levy income tax on employee earnings.

For Christopherson and Rightor (2010, 342), an economic impact analysis (which is the measure of economic activity) "has to be combined with an analysis of return on investment" to evaluate film incentive programs, whether the program warrants "the outlay of tax money or taxes forgone."

Failure to Consider Opportunity Costs

A recurring criticism of proponent studies is the failure to factor opportunity costs in the economic analysis.[58] Opportunity cost is defined as "the loss of potential gain from other alternatives when one alternative is chosen."[59] Identifying opportunity costs acknowledges that limited public funds spent to subsidize film productions will be at the expense of government spending for other projects or programs, or spending by individuals subject to taxation.

Zin (2010, 27) explains the need to consider the opportunity costs in this way:

> Perhaps the most common practice in studies of film incentives, particularly those that portray the incentives most favorably, is to assume that the cost of the incentives on the state budget and state economy is zero. States generally must balance their budgets, however, so any tax credit must be offset by either reduced expenditures or increased taxes just as any direct influx of capital such as a grant or loan would require additional revenue or an offsetting reduction in expenditure elsewhere in the budget. Economists term the cost of what is foregone an "opportunity cost." When an incentive's opportunity cost to the state budget and economy is incorporated in an analysis, it is often termed a "balanced budget" analysis.

In his recent review of California's film incentive program, Mac Taylor (2014, 23-24), Legislative Analyst for California's Legislative Analyst's Office, reviewed previous reports of the Los Angeles County Economic Development Corporation (LAEDC) regarding the program. He found they failed to measure the full "economic costs" (opportunity cost and other costs related to film and television production) in their economic impact studies, thus overstating the program's benefits. He offered:

> "…the state could have used the $100 million instead to provide additional funding for other state programs, such as early childhood education or inmate rehabilitation. And just like the subsidy, any alternative funding decision would have created economic benefits through an economic multiplier effect. This is important because it is possible that an alternative funding decision could have a greater economic benefit than the film tax credit.

Taylor also noted that "many other economic studies of state policies (not just film tax credits) have similar defects" and that it is "unusual for these studies to estimate the "net" economic effect of a policy—which fully accounts for economic costs. Therefore, these studies rarely can establish in and of themselves whether a policy is the "best" choice for the public."

Similarly, Mark Robyn and Harry David (2012, 6) find that "realistic, comprehensive studies show that film production incentives cost the treasury much more than they bring in for a number of reasons," to include "overlooking the opportunity cost of spending and taxes." They go on to say:

> "Because film tax credits cost the state revenue, lawmakers must account for the opportunity costs of that foregone revenue. This lost revenue must be made up somewhere, either by higher taxes elsewhere or fewer government services. Production companies that receive the credits gain, as might businesses closely associated with those projects. But all other taxpayers that pay

[58] MD Office of Policy Analysis (2014, 27); Taylor (2014, 29); Carr (2014, 31); McHugh and Boardman (2014, 8); Lester (2013, 452; 461-462); PA (2013, 23 & 26); Robyn & David (2012, 6); Robyn (2011); Dabson (2012, 5); Zin (2010, 21; 27-28); Christopherson and Rightor (2010, 341); Weiner (2009a, 2009b, 2009c, 16-17); Grand (2006, 796); Saas (2006, 3); and Popp and Peach (2008, 17).

[59] http://www.oxforddictionaries.com/us/definition/american_english/opportunity-cost?q=opportunity+cost

> higher tax or face reduced services lose, as do the businesses that lose the patronage of those taxpayers. Both of these results would have offsetting economic effects that would ripple through the economy, offsetting to some degree the economic effects of film productions."

In their recent review of the New York program, City University of New York professor Marilyn Rubin and Senior fellow at the Rockefeller Institute of Government Donald Boyd (2013, 81-82) acknowledged that the program has incentivized film production in the state. However, "the growth in the industry comes at the expense of higher taxes for other taxpayers or lower spending on state services and investments, possibly reducing activity in other sectors of the economy."

Jennifer Weiner (2009b, 3) observes that spending on government services also has positive economic impact on the economy, and "any reductions in government spending necessary to maintain a balanced budget will offset some of the credit's economic benefits." Importantly, Zin suggests (2010, 28) that spending for government activities is likely to have a greater economic impact than spending in the media production sector, as it "frequently will affect larger industry groups" as well as keep more of the spending in-state.

Because of the constraints imposed by balanced budget requirements, Darcy Rollins Saas, Policy Analyst with the Federal Reserve Bank of Boston, (2006, 3) recommends that film tax credit programs:

> "…be evaluated relative to other policies designed to stimulate job creation over the long run, such as across-the-board tax cuts, investment in education and infrastructure, or tax incentives targeted to other industries."

Overstating Employment Outcomes

In some cases, proponent studies overstate employment outcomes by failing to distinguish between short-term labor and full-time equivalents (FTEs); resident, nonresident, and in-migration labor; or new economic activity and redirected activity.[60] These distinctions are important as employment outcomes are a principle measurement of benefit for film subsidy programs.

Christopherson and Rightor (2010, 343) identify the challenge in calculating FTEs in the film industry labor force:

> "…one of the problems in determining the jobs created by film production lies in the project nature of work in the industry. The stable jobs in the media industries are located overwhelmingly in the major industry centers—Los Angeles and New York—and are in management or business services (entertainment lawyers or equipment rental company employees, for example). The people actually engaged in producing entertainment media products work project-to-project and are rarely employed full time for an entire year. Thus, it is difficult to calculate "jobs," or whether they are full-time or part-time, or even what portion of time film production workers are employed during the year."

Zin (2010, 29) observes that "figures supplied by film offices generally count each employee, regardless of the duration of his or her employment, and do not express figures as FTE positions."

[60] Pinder (2013, 23); Knittel (2013, 21); Robyn & David (2012, 5, 7); Henchman (2012); Zin (2010, 18-19); Christopherson and Rightor (2010, 342-343); Luther (2010, 8); and Weiner (2009a,4; 2009b, 5; 2009c, 30).

The issue of employee residency also impacts measurements of economic impact. Christopherson and Rightor (2010, 342) claim it is one of the "two most important estimates in models of broader economic impact on a state economy." Matthew Knittel (2013, 21), Director of the Pennsylvania Independent Fiscal Office, notes that much of the spending by non-residents "leaks out" of the state economy, as they "spend only a small share of their earning in the state while working on a production." In contrast, spending by in-state residents is largely retained.

In his review of state film subsidy programs, former Economist with the Federal Reserve Bank of Boston Robert Tannenwald (2010, 6) concludes that non-residents are used because most locations outside of New York and Los Angeles "lack crew depth — an ample supply of workers possessing the skills needed to make a feature-length movie." Additionally, "movie-making is so mobile that producers import their own scarce talent, such as principal actors, directors, cinematographers, and screen writers." While general crew members ("below-the-line" workers) may be available locally, the "above -the-line" talent tends to travel with the productions.

Zin (2010, 29) suggests that while:

> "…most states offer incentive programs that discriminate between resident and nonresident employees, and thus should possess data that can allow analysts to differentiate the employees in their analysis, many of the reports fail to indicate whether the adjustment has been made."

If this differentiation is not made, the estimates of economic impact will be overstated.

Another way that proponent studies overstate employment outcomes is by failing to distinguish between "new or additional" activity, versus a redirection of existing activity. Zin (2013, 29-30) finds:

> "Most studies generally … assume that all additional employment related to a production (both direct and indirect) represents an increase in employment. In other words, a make-up artist who works on a production is assumed to have been unemployed absent the production, rather than merely working more hours. Similarly, the analysis assumes the employee has not shifted his or her employment from working on credit-eligible productions instead of another production that does not qualify for the credit. Similarly, services hired by the production (such as for a caterer or set construction) are assumed to represent new activity, rather than taking away from existing activity. The model implicitly assumes that no groups that otherwise would have hired the caterer or the construction worker choose to do without those services as a result of the commitment the caterer or construction worker has made to the film production. Obviously, the extent to which film activity merely redirects existing activity will have a significant impact on the real world effects of the incentives. In the extreme, if 100% of the film-related activity were simply redirected transactions, the net increase on the economy would be zero."

Failure to Account for Flight of Capital Out-of-State

Expenditures benefitting non-resident enterprises constitute a flight of capital out-of-state. In-state expenditures to out-of-state businesses have marginal or no economic benefit when the money leaves the state. The film industry is mobile, and much of the production technical support tends to follow individual projects. Zin (2010, 28) concludes that economic studies "that fail to account for the flight of capital out of state will seriously overstate the impact of any incentive program."

Attributing All In-State Film-Related Activities to Incentives
Most studies assume that the incentive caused the productions qualifying for the incentive, that 'but-for' the incentive, the production company would not have chosen the state for filming.[61] Anthony Popp and James Peach (2006, 10), of the Arrowhead Center, Office of Policy Analysis, New Mexico State University, note that this "assumption generates the largest measure of economic activity and therefore will generate the largest return per dollar of expenditure by the state."

There are, however, counter-arguments to this assumption. First, the physical setting may be an essential component of the production. Jennifer Carr (2014, 32), Deputy Editor of State Tax Notes, suggests that some productions "would have been filmed where they were with or without the enticement of a film credit because the story demanded it."[62] Second, Saas (2006, 2) suggests that existing production infrastructure may lead to new productions, as the talent and production capacity are major considerations in selecting a production site. Rubin and Boyd (2013, 15) noted that two proponent-funded economic impact studies of the New York incentive program assumed "no credit-qualifying film would have been produced in New York State absent the credits despite the long-standing existence of a well-developed film production industry in the state."

Weiner (2009c, 31) offers her assessment on the 'but-for' assertion:

> "To my knowledge, no study has attempted to model what level of film production state tax credits actually induce. Anecdotal evidence of production counts and spending before and after such credits take effect suggest that they do attract the targeted activity. However, the assumption embedded in most studies -- that all credit-assisted projects are credit-induced -- may be generous."

Some studies attribute the economic output of non-incentivized production-related activity to the agglomeration of film and television productions incentivized by the credit. Again, Rubin and Boyd (2013, 15) noted that the two proponent-commissioned New York studies assume:

> "…credit-qualifying film productions would cause substantial credit-ineligible film production activity to locate in New York to take advantage of a film production industry cluster that would not exist but for the credit."

Similarly, Professors Pavel Yakovlev and Antony Davies (2009, 5) of Duquesne University found a Pennsylvania study included the economic impact of "film productions encouraged by the tax credit…" in their economic impact assessment of the state program.

Including Gains in Local Revenues in Assessments of State-Funded Incentives
Some proponent studies include estimated gains in local as well as state revenues in their assessments of state- funded film incentives. Zin (2010, 33) concludes that inclusion of local revenue:

> "…presents an inaccurate evaluation from a budgetary perspective: State governments may not balance their budgets by counting revenue received by local governments. Increases in local tax

---

[61] For a discussion of the "But-For" assertion in evaluating economic development incentives, see "Return on investment for Select State Economic Development Incentive Programs," Office of Economic and Demographic Research, Florida Legislature, 1/1/14. http://edr.state.fl.us/Content/special-research-projects/economic/EDR%20ROI.pdf
Also see Robyn & David (2002, 3).
[62] Also see Christopherson and Righter (2010, 345).

revenue, while advantageous to local units of government (particularly if attributable to the film incentives), do not provide a relevant offset for a state funded tax credit. States are obligated to find ways to afford the incentives they adopted from their own revenue and expenditure policies."

Over-Attributing Economic Outcomes to Film-Induced Tourism

Film-Induced Tourism (FIT) describes the phenomenon of film and television viewers visiting the specific places or regions where filming occurred or is depicted in the film.[63] Images of and positive associations with locales as presented in films and television programs are argued to be a useful promotional device, a valuable advertisement or marketing tool for the region.

Generally, academic research on FIT addresses the type and motivations of tourists, the promotional value of film in relation to tourism, the need for integrated marketing strategy to capitalize on filmed destinations associated with popular productions, and the influence of residents' perceptions and attitudes regarding tourism development of a destination.

While much of this research acknowledges the impact of specific individual productions,[64] independent research attempting to quantify the economic value of the general phenomenon is scarce. A 2012 study by the New Zealand Ministry of Economic Development (ministry) referenced surveys of international travelers regarding FIT (NZMED 2012, 34-35). One survey of 5,200 visitors conducted between April, 2003 and March 2005 attempted to assess "whether respondents had visited New Zealand as a result of seeing" the Lord of the Rings film trilogy. The survey revealed that while 94 percent "said they knew the films were made in New Zealand," about 0.52 percent stated the films were "the main or only reason for their visit." A more recent survey by the ministry "estimated that 0.3 per cent of June quarter visitors, or 1,656 people, reports "movies" (not further defined) as the main influence for visiting New Zealand, and a further 5.7 per cent (27,406) reported "movies" as an "other" influence."

A 2014 survey by the Florida Office of Economic and Demographic Research asked fifty Florida Destination Marketing Organizations (DMOs) to rank the top reasons that tourists visited their communities. FIT was one of the 10 listed response options. Twenty-eight DMOs responded to the survey, only 13 of which listed FIT as one of the many reasons tourists visited their area. All of the major tourist markets were represented in the 28 responses. One ranked FIT as 6th, one as 8th, five listed it as 9th, and six ranked FIT as 10th. This survey indicates that DMOs in the major tourist markets do not consider FIT as a significant influence in tourists' decision to choose Florida as a vacation destination. [65]

Alderman, Derek, Benjamin & Schnieder (2012, 213) observe that FIT "is increasingly promoted in the United States and globally as a marketing and economic development tool." Some proponent-commissioned economic impact studies attribute notable, and some possible significant, economic benefits to FIT.

---

[63] Film-induced tourism may be specifically described as: (1) People visiting the locations where actual filming occurred; (2) people visiting locations represented in the film, but were not the actual filming location; and (3) people attending attractions that simulate the experiences from a film (for example, Universal Studios or the Disney theme parks).
See Derek H. Alderman, Stefanie K. Benjamin and Paige P. Schneider, "Transforming Mount Airy into Mayberry: Film-Induced Tourism as Place-Making." Southeastern Geographer Volume 52, Number 2, Summer, 2012: 212-239.

[64] See Hudson and Ritchie (2006) for a list of examples, through 2000. See subsequent MPAA studies for more recent examples.

[65] Surveys results are available upon request.

Independent analysts express skepticism of these proponent claims.[66] It may be that proponent studies fail to explain or they provide insufficient information as to how FIT impacts were derived. In some cases, estimates are based on the anecdotal evidence from prominent productions, the results of which are projected to in-state productions. When surveys are used as the primary support for their assumptions, the methodology and the inferences drawn from survey respondents have been questioned.

Specifically, McHugh and Boardman (2014, 8) find that most of the studies that have attempted to estimate the economic impact of FIT "rely on questionable data, use a variety of methodologies, and reach differing conclusions." William Luther (2010, 11) finds that "while tourism is expected to be positively correlated with movie productions, there is no reason - or evidence - that this correlation is very large or powerful." Taylor (2012, 7) concludes that the effects of FIT:

> "…would be difficult to measure, would sometimes (based on the content of particular credited films) be positive, and could hypothetically be negative at times (based on negative perceptions of the state created by some films). It is difficult to assume, however, that the content of credited films would routinely be significant in terms of inducing film-related tourism to California."

Weiner (2009b, 4) acknowledges that "…increased film production in a state may lead to increased tourism, which can have economic and fiscal benefits. However, attributing tourism spending to a film tax credit is difficult, if not impossible."

Christopherson and Rightor (2010, 344) explain the circumstances that contribute to the complexity of assessing the economic impact of FIT, whether studio facilities or other film sites:

> "… the economic impact of these attractions is difficult to calculate because each site is different. Sites that are far from cities and accommodations may occasion a visit, but the local economy derives few if any expenditures, particularly if the visits are seasonal. Sites in already established tourist destinations, such as Boston or New York City or Los Angeles, are visited as part of a broader itinerary, and it is difficult to parse their specific impact on tourism expenditures in those locations. Since a visit to a media shooting site may be interchangeable with another tourism experience such as a visit to a street fair or community festival, it is difficult to attribute specific economic benefits to this category of tourist experience.
> Finally, as the New Mexico survey of potential visitors indicates, these entertainment media related sites are only a minor reason for visiting the State…Since the vast majority of visitors to New Mexico perceive a media shoot site as one activity on the "list of things to see," it is difficult to make a direct link between film and television production subsidies and increased tourism expenditures. While shoot sites may increase the "list of things to see," they do not drive the decision to visit the state or determine the length of stay except for a fraction of the tourist population."

Carr (2014, 32) concludes that "overly optimistic studies can rely too heavily on film-related tourism to inflate the economic activity numbers."

[66] MD Office of Policy Analysis (2014, 47); Carr (2014, 32); McHugh and Boardman (2014, 8); Taylor (2012, 7); Christopherson and Rightor (2010, 343-344); Luther (2010, 11); Weiner (2009b, 4); Francis (2009, 5); and Beeton (2006).

STATE PROGRAM FEATURES THAT NEGATIVELY IMPACT ROI

There are a number of program features that negatively impact the ROI of state film incentives when the analyses are done correctly:

- Awarding incentives for expenditures to out-of-state entities;
- Awarding transferable tax credits;
- Rewarding activity that would have occurred absent the incentive; and
- Subsidizing temporary economic activity.

Awarding Incentives for Expenditures to Out-of-State Entities

Most state incentive programs limit incentives to "qualified expenditures" made in-state. To the extent that expenditures occurring in-state by out-of-state businesses are qualified expenditures, the program subsidizes activity that has significant leakages relative to other state expenditures where the funds continue to ripple through the state's economy.

In his review of Michigan's film incentive program, Zin (2010, 24) observes that like some other states, the program:

> "…requires only that the expenditures occur in Michigan in order to be eligible for the credit…If an out-of-state film production company hires the services of an out-of-state mobile postproduction unit, and the expenditure occurs in Michigan, it will be eligible for the credit. However, none of the money will contribute to the State's economic activity: The transaction is between two out-of-State entities and simply occurs within the boundaries of Michigan.

While these types of transactions may generate an initial impact if part of the expenditure is made in-state, "the funds for the transaction essentially flow out of the State immediately."

Similarly, if the wages paid to non-residents are deemed qualified expenditures, there is little or no benefit to the state economy.

Awarding Transferable Tax Credits

Many states use tax credits to incentivize a variety of private economic activities. For some businesses, credits are more reliable than grant programs because credits are not subject to annual appropriations. Others point to the local of sufficient liability to take the authorized credits. Tax credits are essentially foregone revenues that could have been otherwise been spent in the state budget. They provide a reduction in taxes due, after verification that statutory or contractual terms have been met. Absent a tax obligation, businesses are unable to benefit from the credit.

Many state film incentive programs award transferable tax credits to qualified productions. These credits may be sold to someone with a tax obligation, either directly or through an intermediary, and typically at a discount. Some states may also offer to buy-back the credit, typically at a pre-set discount. In both circumstances, the credit functions as a cash grant to the production company, thereby offsetting their production costs.[67] Selling tax credits, or redeeming them through state buy-back programs, allow production companies to monetize the credits immediately when they have little or no tax liability.

[67] *Pitter (2013, 9); Rubin and Boyd (2013, 72, 75); and Weiner (2009a, 2).*

However, some analysts find that incentivizing film productions with transferable tax credits "cost states considerable foregone tax revenue" that does not directly benefit the film production.[68] The act of transferring the credits at a discount means some of the benefit (equal to the discount) goes to unrelated industries. In effect, the state pays more than it has to for the same amount of production activity.

Christopherson & Rightor (2010, 340) provide this overview of how film tax credits are sold and redeemed, and the fiscal consequences:

> "Producers or project investors can secure eligibility for a tax credit of an authorized amount in advance of production, and then sell that credit to any party that needs it to reduce their tax liability in that state. The buyers of these tax credits are typically individuals or corporations with no connection to the media entertainment industry, but with significant state tax liabilities. The production companies obtain upfront cash in return for selling tax credits that, in many cases, exceed what they could use. The buyers procure those tax credits at a discount, for example eighty cents on the dollar, thereby effectively decreasing that amount of their tax bill by 20 percent. The state loses 100 percent of the credit amount in revenue."

From an allocation perspective, incentive programs that allow for the transfer of tax credits are inefficient.[69] Oklahoma's 2011 "Task force on Tax Credits and Economic Incentives" concluded that transferable tax credits:

> "…have the undesirable feature of allowing persons or business entities having no economic connection to targeted business or economic activity to reduce their personal or business tax liabilities. This constitutes an inefficient use of state revenue partly because transferable credits are frequently sold at a discount -- diminishing the impact of the credit for the business enterprise that was supposed to be able to benefit from the credit program in the first instance."

In her recent review of Massachusetts' film incentive program, Amy Pitter (2013, 22, 3), Massachusetts Commissioner of Revenue, notes that:

> "Of the $326.5 million in film credits generated between calendar years 2006 and 2011 … $291.2 million were sold directly to other Massachusetts taxpayers or to tax credit brokers. For the $291.2 million in face value credits, $250.5 million was paid directly to film production companies, $8.7 million was gross profit of tax credit brokers, and $32.0 million benefited other Massachusetts taxpayers in the form of reduced net tax payments to the Commonwealth."

Arguably, states could offer grants at the discounted value of the tax credits for the same level of incentivized economic activity. Alternatively, the grants could be kept at the same level of funding, and increase the subsidy going directly to film production.

---

[68] *Saas (2006, 1); Also see Grand (2006, 796) and Albrecht (2005, 1-2).*

[69] Rothstein and Wineinger (2007, 53 and 66) find that transferability "adds an extra dimension of costs and benefits to a tax credit." In his review of Iowa's tax credits, Richard Oshlo (2010, 4) finds that transferability of tax credits "siphons resources from awarded entities." Baxter (2011, 46) notes that the combination of selling credits at a discount, paying tax brokers to facilitate the transaction, and state agency costs in the administration of the process "chips away some value from the incentive."

Rewarding Activity That Would Have Occurred Absent the Subsidy

Productions choose sites for a variety of reasons, including access to state subsidies. However, some states may award subsidies to productions without definitively establishing that the subsidy is the determinative factor in choosing the state.[70] As previously noted, for some productions the physical setting is essential to the film. Where the location is the draw, and the location cannot be replicated in another location or through special effects, incentives are unnecessary. Additionally, Christopherson and Rightor (2010, 341) observe that:

> "…state subsidies can result in "tax windfalls" to some projects because the subsidies are granted after the decision has been made to locate production in that state, and thus are underwriting productions that could have been obtained without the subsidy."

Subsidizing Temporary Economic Activity

Most state film incentives subsidize short-term economic activity in a highly mobile industry that is able to shift future production in response to incentives offered by competing states. On the whole, the jobs and production expenditures are temporary and sporadic. Unlike many other economic development incentives, incentive recipients are not required to invest in facilities, which could increase the ROI for the incentive program and demonstrate the production company's long-term commitment to the granting state.

SUMMARY OF INDEPENDENT STUDIES

Many independent analysts conclude that state film subsidy programs are not self-supporting, as they generate less in state tax revenue than the state payments funding the incentives.[71] At the current subsidy levels and under the current state tax structures, the tax revenues from direct expenditures by subsidy recipients and any indirect and induced effects, are insufficient to recoup the costs of state incentive programs. Additionally, many independent analysts are skeptical of proponent claims regarding the economic impact of film-induced tourism.

A number of these studies are listed below. These studies consider the program features unique to each state, and use methodologies that are generally consistent with the assumptions and best practices identified in the academic literature.

[70] Robyn and David (2012, 3); Luther (2010, 12); Christopherson and Rightor (2010, 339); Tannenwald (2010, 7); Weiner (2009c, 32); Yakovlev and Davies (2009, 2); Sass (2006, 2);

[71] For MD program: MD Office of Policy Analysis (2014, 8); Carr (2014, 31 & 33); For NC program: McHugh and Boardman (2014, 1); Rubin and Boyd (2013, 82); Robyn and David (2012, 8); Taylor (2012, 8); Christopherson and Rightor (2010, 349); Tannenwald (2010, 8); Luther (2010, 12); Weiner (2009c, 31); Francis (2009, 1); Saas (2006, 1); and for LA program, Albrecht (2005, 6).

TABLE 1

Estimates of Return on Investment by Independent Analysts for State Film Incentive Programs

State	Year of Review	Research or Report Sponsor	% of Reimbursement for Qualified Expenditures	ROI to the State
Alaska	2012	Legislative Budget & Audit Cm	30 - 44%	$0.07
Arizona	2008	Department of Commerce	20 - 30%	$0.27
California	2014	Legislative Analyst Office	20 - 25%	$0.65
Connecticut	2014	Dept. of Economic & Com. Dev.	30%	-$0.09
	2008	Dept. of Economic & Com. Dev.	30%	$0.08
Florida	2014	Economic & Dem. Research	20 - 30%	
		Credits Awarded and Redeemed in 3-Year Review Period		$0.43
		Credits Awarded, with Total Potential Costs of Redemptions in a 3-Year Period		$0.25
Louisiana	2013	Dept. of Economic Development	30 - 35%	$0.11
	2011	Legislative Fiscal Office		$0.15
	2009	Dept. of Economic Development		$0.13
	2005	Legislative Fiscal Office		$0.16 to $0.18
Maryland	2014	D of Legislative Services (Draft)	25 - 27%	$0.06*
Massachusetts	2013	Dept. of Revenue	25%	$0.13
Michigan	2014	Michigan Film Office**	29% (2012)	$0.38
			37% (2011)	$0.24
	2010	Senate Fiscal Agency	42%	$0.11
New Mexico	2014	Dept. of Finance & Administration	25 - 30%	$0.33
	2008	Legislative Finance Committee	25%	$0.14
North Carolina	2014	Legislative Services Office	25%	$0.46***
Pennsylvania	2013	Independent Fiscal Office	25 - 30%	$0.14

* October 2014 Draft

** While commissioned by the Michigan Film Office, the analysis was conducted by Regional Economic Models, Inc., a recognized independent research entity.

***4/13/14 Preliminary

Source: See References section for links to the respective studies listed above. In addition, the page includes links to recent impact studies commissioned by the Motion Picture Association of America (MPAA).

CONCLUSION

Return on Investment

More rigorous analyses uniformly conclude that state film incentive programs generally provide substantial subsidies for short-term productions that are unable to generate sufficient taxable activity for the state to recoup the costs of the program. In their recent review of the New York program, Rubin and Boyd (2013, 81-82) concede that film incentives have:

> "…definitely caused film production to locate in New York, as would a credit of similar magnitude for any potentially mobile industry. Nonetheless, that activity is not large enough to cause the credit to pay for itself. It would take implausible assumptions to reach that conclusion."

Development of Permanent, In-State Film Industry

Additionally, independent analysts find that film production incentives are likely to be ineffective in developing a permanent, non-subsidized in-state film industry.[72] Film production is a highly mobile industry, able to respond to more lucrative incentives from competing states. Sustained production activity requires sustained subsidies.[73]

In his testimony before the Finance Committee of the Alaska House of Representatives, Joseph Henchman of the Tax Foundation (2012) offered this assessment:

> "Generally, states have adopted film tax incentives out of a desire to build a film industry in the state. Because California (and to some extent, New York) have already done this, and because most states are far behind early tax program adopters like Hawaii, Louisiana, and the Canadian provinces, this can be very difficult. Productions flock to whichever state offers the most generous incentive and leave as soon as another state offers a more generous one.
>
> The underlying framework for film tax credits to build a permanent industry is therefore flawed. The idea is to subsidize each production as it flows through the state, in the hopes that enough productions will be cycling through, creating a critical mass that builds lasting infrastructure that in turn, at some future date, can survive successfully without ongoing state financial support of the industry. No state has achieved this economic development model with film tax incentives; the closest is Louisiana, which has seen substantial infrastructure investment but with no end in sight to annual state film incentive support."

Film Induced Tourism

As for the potential to recover state program costs through film-induced tourism, many independent analysts are skeptical, concluding the economic benefits are largely unsubstantiated and likely overstated. However, they do acknowledge that to the extent that state subsidies result in a significant number of popular productions where the physical site is a prominent feature favorably shown, is an essential "character" or component of the show, or the productions popularize new or emerging site-specific activities,[74] and visiting the physical site is the primary reason for out-of-state travel, then film-induced tourism may have quantifiable economic and fiscal benefits sufficient to fund, to some extent, film subsidies. While there may be individual prominent exceptions, on the whole most productions fail to satisfy these criteria, and state programs do not generate enough of the exceptions to support the public subsidies.

---

[72] *MD OPA (2014, 57); Klowden, Hamilton, and Keough (2014, 13); Christopherson and Rightor (2010, 336-352); and Robyn and David (2012, 4 and 8).*

[73] *MD Office of Policy Analysis (2014, 27; 41-42); Klowden, Hamilton, and Keough (2014, 16); Carr (2014, 33); Rubin and Boyd (2013, 77); Tannenwald (2010, 8); and Weiner (2009a, 2; 2009c, 32).*

[74] *This has been referred to this as the "Deliverance" effect, a reference to the popular 1972 movie of the same name. This effect describes the impact a production has on tourism by promoting a place and an associated activity, in this case, the white-water tourist industry in north Georgia.*

TABLE 2:
2014 State Film & Related Entertainment Incentives, by Type

	F & R E Incentive	Grant (Refund)	Tax Credit	Transferable	Refundable	Sales or Hotel Tax Exemption
Alabama	X	X				X
Alaska	X		X	X		
Arizona	**					
Arkansas	X	X				
California	X		X			
Colorado	X	X				
Connecticut	X		X			X
Delaware	*					
Florida	X		X	X		X
Georgia	X		X	X		X
Hawaii	X		X		X	
Idaho	**					
Illinois	X		X	X		
Indiana	**					
Iowa	**					
Kansas	**					
Kentucky	X		X		X	
Louisiana	X		X	X	X	
Maine	X	X	X			X
Maryland	X		X		X	
Massachusetts	X		X	X	X	X
Michigan	X	X				
Minnesota	X	X				X
Mississippi	X	X				X
Missouri	**					
Montana	X	X	X		X	X
Nebraska	X					X
Nevada	X		X	X		
New Hampshire	*					
New Jersey	X		X	X		X
New Mexico	X	X	X		X	X
New York	X		X		X	
North Carolina	X	X				
North Dakota	***					
Ohio	X		X		X	
Oklahoma	X	X ****				
Oregon	X	X				X
Pennsylvania	X		X	X		X
Rhode Island	X		X	X		
South Carolina	X	X				X
South Dakota	*					
Tennessee	X	X				X
Texas	X	X				X
Utah	X	X				X
Vermont	X					X
Virginia	X	X	X			X
Washington	X	X				X
West Virginia	X		X	X		X
Wisconsin	**					
Wyoming	X	X				
Puerto Rico	X		X	X		
TOTAL	**40**	**19**	**23**	**12**	**9**	**22**

* No specific state incentive for film and related entertainment.
** State repealed or ceased funding incentive for film and related entertainment.
*** North Dakota has a general income tax exemption, for which film productions may qualify
**** Oklahoma also offers a film/music project or facility investment tax credit.
Source: http://www.ncsl.org/Portals/1/Documents/fiscal/2014FilmIncentivePrograms.pdf last accessed 10/31/14.

Economic Impact Studies of State Film Incentive Programs,

by Independent Analysts

Alaska

"Special Report on the Alaska Film Production Tax Incentive Program," Legislative Budget and Audit Committee, Division of Legislative Audit, Alaska State Legislature, August 8, 2012. http://www.legaudit.state.ak.us/pages/audits/2012/pdf/30066rpt.pdf

Arizona

"Motion Picture Production Tax Incentives Program, Annual Report (2008)," Arizona Department of Commerce
http://www.stop-runaway-production.com/wp-content/uploads/2009/07/2008-az-report-52-pages.pdf

California

"Overview of Motion Picture Industry and State Tax Credits (2014)," Legislative Analyst Office
http://www.lao.ca.gov/reports/2014/finance/tax-credit/film-tv-credit-043014.pdf

Connecticut

"An Assessment of Connecticut's Tax Credit and Abatement Programs," Department of Economic and Community Development, September 2014.
http://www.ct.gov/ecd/lib/ecd/decd_sb_501_sec_27_report_revised_2013_final.pdf

"The Economic and Fiscal Impacts of Connecticut's Film Tax Credit," Department of Economic & Community Development, for the Connecticut Commission on Culture & Tourism, February 2008.
http://www.ct.gov/cct/lib/cct/Film_Tax_Credit_Study_-_Final.pdf

Florida

"Return on Investment for the Entertainment Industry Incentive Programs," Office of Economic & Demographic Research, January 2015.

Louisiana

"The Economic Impact of Louisiana's Entertainment Tax Credit Program." Loren C. Scott & Associates, Inc., April 2013 http://louisianaentertainment.gov/docs/main/2013_OEID_Program_Impact_Report_(FINAL).pdf

"Fiscal & Economic Analysis of Louisiana's Entertainment Incentives," BaxStarr Consulting Group, LLC., April 18, 2011.
http://louisianaentertainment.gov/docs/main/louisiana_entertainment_2011_economic_impact_analysis.pdf

"Louisiana Motion Picture, Sound Recording and digital Media Industries, " Economic Research Associates, February 2009 (ERA Project No. 18014
http://www.opportunitylouisiana.com/assets/LED/docs/Performance_Reporting/ERA_Entertainment_Report.pdf

"Film and Video Tax Incentives: Estimated Economic and Fiscal Impacts," Greg Albrecht, Chief Economist, LA Legislative Fiscal Office, March, 2005 http://lfo.louisiana.gov/files/revenue/FilmVideoIncentives.pdf

Maryland

"Evaluation of the Maryland Film Production Activity Tax Credit," Maryland Department of Legislative Service, Office of Policy Analysis, October 2014.
http://dls.state.md.us/data/polanasubare/polanasubare_taxnfispla/WEB-Draft-Film-Tax-Credit-Report.pdf

Massachusetts

"A Report on the Massachusetts Film Industry Tax Incentives," commonwealth of Massachusetts, Department of Revenue, Amy Pitter, Commissioner of Revenue, March 21, 2013
http://www.mass.gov/dor/docs/dor/news/reportcalendaryear2011.pdf and
http://www.mass.gov/dor/docs/dor/news/reportcalendaryear2010.pdf

Michigan

"Modeling Tax Return on TV, Film, and Digital Media Incentives in Michigan," Regional Economic Models, Inc. (REMI), Rod Motanedi and Huaqun Li.
http://www.michiganfilmoffice.org/cm/The-Film-Office/MFO%20Impact%20Study%20-%20FINAL.pdf
"Film Incentives in Michigan," David Zin, Economist, Senate Fiscal Agency, September 2010.
http://www.senate.michigan.gov/sfa/publications/issues/filmincentives/filmincentives.pdf

New Mexico

"The Film Industry in New Mexico and the Provision of Tax Incentives," Anthony V. Pop and James Peach, Arrowhead Center, Office of Policy Analysis, New Mexico State University, August 26, 2008
http://arrowheadcenter.nmsu.edu/sites/default/files/uploadecd/filmindustryfinal.pdf

North Carolina

McHugh, Patrick and Barry Boardman, Fiscal Research Division of the Legislative Services Office of the North Carolina General Assembly, Memo to Representative Rich Catlin, RE: Preliminary Review of Handfield Film Study, 4/03/14.
http://www.wral.com/asset/news/state/nccapitol/2014/10/10/14064037/Review_of_Handfield_Film_Study_-_Rep_Catlin_1_.pdf

Pennsylvania

"Uncapping the Film Production Tax Credit: A Fiscal and Economic Analysis," Special Report 2013-5, Independent Fiscal Office of the PA General Assembly, May 31, 2013.
http://finance.pasenategop.com/files/2013/10/IFO-Report-on-Film-Production-Tax-Credit.pdf

Rhode Island

"A Macro Analysis of the Return on Investment of the Rhode Island Motion Picture Production Tax Credits," Discussion Paper, Department of Revenue, 7/22/2008.
http://www.dor.ri.gov/Reports/Special%20Reports/Macro%20Analysis%20of%20RI%20Film%20Production%20Tax%20Credits%20Report%2007-21-0.pdf

South Carolina

"Analysis of South Carolina's Film Incentives," AECOM Economics, Prepared for the South Carolina Department of Parks, Recreation and Tourism, December 9, 2011.
http://www.filmsc.com/!userfiles/SC%20Film%20Anlaysis%20-%20FINAL%20AECOM%20Report%2012-9-11.pdf
Impact Analysis for Film Production in South Carolina, South Carolina Council for Economic Development, April 29, 2008, as reported in several publications, to include Calcagno, Peter (2009) Unleashing Capitalism: A Prescription for Economic Prosperity in South Carolina, South Carolina Policy Council Education Foundation (Columbia, SC) p 142.
http://faculty.citadel.edu/sobel/UC/Unleashing%20Capitalism%20SC.pdf

Canada

Lester, John "Tax Credits for Foreign Location Shooting of Films: No New Benefit for Canada," Canadian Public Policy, Volume 39, No. 3, September 2013, pp. 451-472.
http://econpapers.repec.org/article/cppissued/v_3a39_3ay_3a2013_3ai_3a3_3ap_3a451-472.htm

References

Albrecht, Greg, "Film and Video Tax Incentives: Estimated Economic and Fiscal Impacts." Baton Rouge, LA: State of Louisiana Legislative Fiscal Office, 2005.

Alderman, Derek, Benjamin & Schnieder, "Transforming Mount Airy into Mayberry: Film-Induced Tourism as Place-Making" Southeastern Geographer, 52(2) 2012: pp. 212-329.

Baxter, Cheryl Louise, "Fiscal & Economic Analysis of Louisiana's Entertainment Incentives," BaxStarr Consulting Group, LLC., April 18, 2011.

Beeton, Sue, "Understanding Film-Induced Tourism" Tourism Analysis, Vol. 11, 2006: 181–188.

Beeton, Sue, Film Induced Tourism. (Great Britain: Cromwell Press, 2005)

Busby, Graham, Rong Huang and Rebecca Jarman, "The Stein Effect: an Alternative Film-induced Tourism Perspective" International Journal Of Tourism Research Int. J. Tourism Res. 15, 2013: 570–582.

Carr, Jennifer, "Film Tax Credit Studies Fail to Deliver on Big Promises" Viewpoint, State Tax Notes, April 7, 2014

Cobb, Kathy, "Roll the credits ... and the tax incentives. Cities, states and even countries spar for film production business, but at what cost?" FedGazette, a publication of The Federal Reserve Bank of Minneapolis, 9/1/06.

Coletti, Joseph and Jacob Burgdorf, "Not the Best of Both Worlds," John Locke Foundation, July 22, 2009.

Christopherson, Susan and Ned Rightor, "The Creative Economy as "Big Business": Evaluating State Strategies to Lure Filmmakers" Journal of Planning Education and Research, December 21, 2009

Christopherson, Susan M., Maria C. Figueroa, Lois Spier Gray, James Parrott, Damone Richardson, and Ned Rightor. (2006) "New York's Big Picture: Assessing New York's Position in Film, Television and Commercial Production." A Report to the New York Film, Television and Commercial Initiative. Ithaca, NY: Cornell University and the Fiscal Policy Institute. August 2006.

Crompton, John L., "Economic impact analysis of sports facilities and events: Eleven sources of misapplication." Journal of Sport Management, 9(1), 1995: 14-35.

Croy, Glen W., "The Lord of the Rings, New Zealand and Tourism: Image Building with Film," Working Paper. Monash University, Business and Economics, March 2004.

Dabson, Brian, Thomas G. Johnson, Andrew Wesemann, Maria Figueroa-Armijos, and Judith I. Stallmann, "Assessing the Impact of Missouri's Tax Credits," Submission to the Missouri Tax Credit Review Commission, Policy Research Brief, October 2012.

Damon, Anjeanette, "States' Film Tax Breaks Don't Always Pay Off," USA Today, January 27, 2014.

Edward, Ashley W. "There's No Business Like The State Film Tax Incentive Business: An Analysis Of Pennsylvania's Film Production Tax Credit Program," University of Pittsburgh Journal of Technology Law & Policy, 13 PGH. J. Tech. L. & Pol'y 5 (Fall, 2012)

Elmer, G. and Gasher, M. Contracting out Hollywood: Runaway Productions and Foreign Location Shooting. (Lanham, MD: Rowman & Littlefield, 2005.)

Francis, Norton, Chief Economist, State of New Mexico Legislative Finance Committee, Memo to Senator John Arthur Smith, Chair, SFC and Representative, Luciano "Lucky" Variella, Vice Chair, HAFC, "RE: Ernst and Young Film Study: REVISED," March 7, 2009.

Grand, John. "Motion Picture Tax Incentives: There's No Business Like Show Business." State Tax Notes, March 13, 2006. 791-803.

Henchman, Joseph. "More States Abandon Film Tax Incentives as Programs' Ineffectiveness Becomes More Apparent." Tax Foundation Report No. 272. June 2, 2011.

Henchman, Joseph, Hearing of the Finance Committee of the Alaska House of Representatives, March, 22, 2012.

Hudson, Simon and J.R. Brent Ritchie, "Promoting Destinations via Film Tourism: An Empirical Identification of Supporting Marketing Initiatives," Journal of Travel Research, 44; 2006: 387-396.

Klowden, Kevin, Priscilla Hamilton, and Kristen Keough, "A Hollywood Exit: What California Must Do to Remain Competitive in Entertainment - and Keep Jobs" Milken Institute, 2014.

Klowden, Kevin, Anusuya Chatterjee, and Candice Flor Hynek , "Film Flight: Lost Production and Its Economic Impact on California 2010," Milken Institute, 2010.

Knittel, Matthew (2013) "Uncapping the Film Production Tax Credit: A Fiscal and Economic Analysis" Special Report 2013-5 of the Independent Fiscal Office, State of Pennsylvania. May 31, 2013.

Leinenkugel, Richard (2009) Wis. Dep't Of Commerce, Cost Benefit Analysis Of Wisconsin Film Tax Credit Program 2 (2009). http://www.ctvoices.org/sites/default/files/bud09wisconsinppt.pdf

Lester, John, "Tax Credits for Foreign Location Shooting of Films: No Net Benefit for Canada," Canadian Public Policy, Vol. 39, Issue 3, 2013: 451-472

Luther, William. "Movie Production Incentives: Blockbuster Support for Lackluster Policy," Tax Foundation Special Report No. 173, January 14, 2010.

Mathis, Tim, "Louisiana Film Tax Credits: Costly Giveaways to Hollywood" A Louisiana Budget Project Report, 2012. http://www.labudget.org/lbp/wp-content/uploads/2012/08/LBP-Report.Louisiana-Film-Tax-Credits.pdf

McDonald, Adrian, "Down the Rabbit Hole: The Madness Of State Film Incentives As A "Solution" To Runaway Production" U. Of Pennsylvania Journal Of Business Law, Vol. 14:1, 2011: 85-165.

McDonald, Adrian, "Through the Looking Glass: Runaway Productions and "Hollywood Economics," 9 University of Pennsylvania Journal of Labor and Employment Law, 2007: 879-949.

McHugh, Patrick and Barry Boardman, Fiscal Research Division of the Legislative Services Office of the North Carolina General Assembly, Memo to Representative Rich Catlin, RE: Preliminary Review of Handfield Film Study, 4/03/14.

Macionis, Niki, "Understanding the film-induced tourist," In Frost, Warwick, Croy, Glen and Beeton, Sue (editors). International Tourism and Media Conference Proceedings. 24th-26th November 2004. Melbourne: Tourism Research Unit, Monash University, 2004: 95.

McLeer, Jilian, "Box Office Bombs: State Film Tax Credit Programs, New Jersey's Included" Rutgers Journal of Law & Public Policy, October 14, 2013.

New Zealand Ministry of Economic Development, “Discussion Paper: Growth and Dynamics of the New Zealand Screen Industry,” April 2012.

O’Connor, Noelle (2010) “A Film Marketing Action Plan (FMAP) for Film Induced Tourism Destinations.” Doctoral Thesis. Dublin, Dublin Institute of Technology, 2010.

Oshlo, Richard, “State of Iowa Tax Credit Review Report, issued by the Tax Credit Review Panel,” January 8, 2010.

Popp, Anthony V. Popp and James Peach, "The Film Industry in New Mexico and the Provision of Tax Incentives," Arrowhead Center, New Mexico State University (Aug. 26, 2008).

Riley, R., D. Baker, and C. Van Doren, C., “Movie Induced Tourism.” Annals of Tourism Research. Volume 25, No. 4, 1998: 119-135.

Riley, R. and C.S. Van Doren, “Movies as Tourism Promotion: A “Pull” Factor in a “Push” Location.” Tourism Management, September, 1992: 267-274.

Robyn, Mark. Staff Economist, Tax Foundation. Testimony before the California State Assembly, Joint Oversight Hearing: the Committee on Revenue and Taxation and the Committee on Arts, Entertainment, Sports, Tourism, and Internet Media, March 21, 2011.

Robyn, Mark and Harry David “Movie Production Incentives in the Last Frontier” Tax Foundation Report No. 199, April 2012.

Rothstein, Paul and Nathan Wineinger (2007) “Transferable Tax Credits in Missouri: An Analytical Review” Federal Reserve Bank of St. Louis, Regional Economic Development, 3(2), 2007: 53-74.

Rubin, Marilyn M. and Donald J. Boyd, “New York State Business Tax Credits: Analysis And Evaluation,” A Report Prepared for the New York State Tax Reform and Fairness Commission, November 2013

Saas, D. R., “Hollywood east? Film tax credits in New England.” New England Public Policy Center, Federal Reserve Bank of Boston, Policy Brief (06-3), 2006.

Schonauer, Joshua R., “Star Billing? Recasting State Tax Incentives for the “Hollywood: Machine,” 71 Ohio State Law Journal, 2010: 381-415.

Scott, Loren C. Associates Inc., "The Economic Impact of Louisiana's Entertainment Tax Credit Programs" (Apr. 2013).

Stevens, Georgina, “An Analysis of the Runaway Production Phenomena on the Film and Television Production Industries in the United States and California,” Dissertation for The European School of Economics, Bachelor of Science in International Finance, Degree Programme validated by the University of Buckingham (Matriculation Number: 0902772), January 14, 2013

Tannenwald, Robert. "Criticism of State Tax Incentives Is Essential." State Tax Notes 71. 7, 2014: 415-418.

Tannenwald, Robert, “State Film Subsidies: Not Much Bang for Too Many Bucks.” Center on Budget and Policy Priorities. December 2010.

Taylor, Mac, Legislative Analyst for the California Legislative Analyst’s Office. Memo to the Hon. Lois Wok, Chair of the California Senate Governance and Finance Committee, June 13, 2012.

Taylor, Mac, “Film and Television Production: Overview of Motion Picture Industry and State Tax Credits,” CA Legislative Analyst’s Office, April 30, 2014.

Tooke, N., and M. Baker, “Seeing is believing: The effect of film on visitor numbers to screened locations.” Tourism Management 17 (2), 1996: 87-94.

Tosun, Mehmet Serkan and Mark Skidmore, “Cross-Border Shopping and the Sales Tax: A Reexamination of Food Purchases in West Virginia.” (Working Paper, 2005),http://www.rri.wvu.edu/pdffiles/Tosunwp2005-7.pdf. *Also see* Randolph T. Beard, Paula A. Gant, & Richard P. Saba, “Border-Crossing Sales, Tax Avoidance, and State Tax Policies: An Application to Alcohol,” *Southern Economic Journal*, 64(1), 1997: 293-306.

Tuclea, Caludia-Elena and Puiu Nistoreanu, “How film and television programs can promote tourism and increase the competitiveness of tourist destinations,” Cactus Tourism Journal Vol. 2, Issue 2, 2011: 25-30.

Weiner, Jennifer, **“**Memorandum re: Cost-benefit analysis of Connecticut’s film tax credit.” The New England Public Policy Center, The Federal Reserve Bank of Boston, Boston, MA. January 19, 2009a.

Weiner, Jennifer, **“**Memorandum re: Ernst & Young Analyses of New Mexico and New York Film Tax Credits,” Federal Reserve Bank of Boston, April 2, 2009b.

Weiner, Jennifer, “State Business Tax Incentives: Examining Evidence of their Effectiveness,” New England Public Policy Center Discussion Paper 09-3, December 2009 Federal Reserve Bank of Boston, December, 2009c.

Wilson, Will. "Tax Breaks for Films Go Undisclosed in Many States," Governing, Feb. 22, 2012.

Yakovlev, Pavel and Antony Davies, “Pennsylvania’s Flawed Film Tax Credit: What the ERA study won’t tell you.” Policy Brief from the Commonwealth Foundation, Vol. 21, No. 02 July 2009.

Yale, Camille K. "Runaway Film Production: A Critical History of Hollywood's Outsourcing Discourse." Diss. University of Illinois at Urbana-Champaign, 2010. Ideals.illinois. University of Illinois at Urbana-Champaign. Web. 30 Oct. 2012.

Zin, David, “Film Incentives In Michigan.” The Senate Fiscal Agency, Michigan Senate. September 2010