Return on Investment for the Entertainment Industry Incentive Programs

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EXECUTIVE SUMMARY AND COMPARATIVE ANALYSIS

Background and Purpose
Legislation enacted in 2013 and revised in 2014 directs the Office of Economic and Demographic Research (EDR) and the Office of Program Policy Analysis and Government Accountability (OPPAGA) to analyze and evaluate 21 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 programs under review in this analysis are the Florida Entertainment Industry Financial Incentive (tax credit) Program and the Florida Entertainment Industry Sales Tax Exemption Program. The review period covers Fiscal Years 2013-14, 2014-15, and 2015-16.

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:

\[
\frac{(\text{Increase in State Revenue} - \text{State Investment})}{\text{State Investment}}
\]

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.

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1 Section 288.0001, F.S.
2 Section 288.005(1), F.S.
3 A description of the Statewide Model is detailed in the Methodology section.
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.

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.

Programs under Evaluation
The Florida Entertainment Industry Financial Incentive Program began July 1, 2010, and expired June 30, 2016. While it no longer exists, it operated during all three years of the review period. The program offered tax credits for qualified expenditures related to film and digital media production (motion pictures, commercials, music videos, industrial or educational films, infomercials, documentary films, television series, and digital media projects) in Florida. The program was administered by the Office of Film and Entertainment (OFE) which continues to administer the remaining credits of the program. The program was allocated $296 million in credits over its entire existence, which could be taken against sales and use tax or corporate income tax. Qualified expenditures included production expenditures for goods or services purchased or leased from Florida vendors and salary and wages paid to Florida residents. Up to 30% of the qualified purchases were eligible for a tax credit. The credits were allocated on first-come, first-serve basis.

The second program under review is the Florida Entertainment Industry Sales Tax Exemption Program. Under the Florida Entertainment Industry Sales Tax Exemption Program, qualified purchases made by production companies for motion pictures, made-for-television motion pictures, television series, commercials, music videos or sound recordings are eligible for a sales and use tax exemption. This exemption program is administered by OFE and allows businesses to apply for 12 month or 90 day exemption certificates. An estimated $52.2 million in state sales tax was exempted from these purchases during the review period.

Overall Results and Conclusions
The Florida Entertainment Industry Financial Incentive Program (tax credit) generated a lower ROI of 0.18 in 2018 compared to the reported 0.43 in 2015. This ROI 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 review period of the analysis. Offsetting these tax revenues was the loss of tax receipts that would have been collected had the State made the same investment in the general market basket of goods, in lieu of offering the tax credits.

4 Section 288.1254, F.S.
5 Section 288.1258, F.S
Positive and negative factors that affect this return on investment are:

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

The tax credit program does not require the recipient of the award 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 would 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 Florida Entertainment Industry Sales Tax Exemption Program (tax exemption) generated a slightly higher ROI of 0.58 in 2018 compared to 0.54 in 2015. This ROI was determined by calculating the tax revenues which resulted from the activity associated with the expenditures of the production receiving the exemption.Offsetting these tax revenues was the loss of tax receipts that would have been collected had the State made the same investment in the general market basket of goods in lieu of offering the tax exemptions.

Negative factors that affect this return are:

- Assumes not all recipients of certificates meet the “but for” requirement;
- No requirement for capital investment; and
- Participation in the tax credit program.

As pointed out above, neither of these programs specifically require that an applicant certify that the subsidized activity would not have occurred in the absence of the incentives or tax exemptions. This analysis assumes that the “but for” assumption holds in all cases for the film tax credit program and in most cases, except where it is clearly untrue, for the sales tax exemption program. As a consequence of this critical assumption, the calculated ROIs should be viewed as “best case” scenarios. In other words, they should be viewed as an upper bound for 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 included in this analysis.

Finally, the analysis of the tax credit program does not assume any losses associated with the transfer of credits (i.e. discounting), which overstates the true state cost of the program relative to a pure grant program attempting to accomplish the same end. In turn, this overstates the ROI for the tax credit program relative to the same expenditure for a grant program due to the increased economic efficiency of a grant program in getting the subsidies to the intended recipients.6

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6 A detailed discussion of tax credit transferability can be found in EDR’s 2015 report, Return on Investment for the Entertainment Industry Incentive Programs
http://edr.state.fl.us/Content/returnoninvestment/EntertainmentIndustryIncentivePrograms.pdf
OVERVIEW OF THE ENTERTAINMENT INDUSTRY FINANCIAL INCENTIVE AND SALES TAX EXEMPTION PROGRAMS

Background and Purpose
Florida offers financial incentives to encourage the commercial production of films, television programs, 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, arguably in response to incentives available from competing states.

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. The Florida Film and Entertainment Advisory Council assists OFE with 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.”

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

Entertainment Industry Financial Incentive Program
The Entertainment Industry Financial Incentive (tax credit) Program was initiated 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.” The program is administered by OFE, subject to the policies and oversight of DEO. The program provides tax credits for qualified expenditures related to filming and media production activities in Florida. The program began on July 1, 2010 and expired June 30, 2016.

Initially a cash refund incentive subject to an annual appropriation, 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. These tax credits provided 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 resulted in no tax obligation, they were unable to benefit from the credits.

To overcome this limitation, incentive recipients had the option to monetize the credits by selling them to an entity that had a tax obligation, either directly or through an intermediary (tax broker), and typically at a discount. The statutes also authorized the transfer of the credit back to the state for 90

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7 Section 288.1251, F.S.
8 Section 288.1252, F.S.
10 s. 28, ch. 2010-147, L.O.F.
percent of the face value; however, this option was unavailable as no state funds were appropriated for this purpose.\textsuperscript{11}

Annual credit caps were initially set over 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.\textsuperscript{12} 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 over the six-year period.\textsuperscript{13} OFE reports that all of the credits have been certified (or allocated to certified productions). *The Fiscal Year 2016-17 Entertainment Industry Financial Incentives Annual Report* published November 1, 2016 indicates DEO has awarded $231,555,971 of the allocated tax credits.

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

- 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 were: 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 were reserved for music videos, and three percent were reserved for independent and emerging media.

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

**The Entertainment Industry Sales Tax Exemption Program**

The Entertainment Industry Sales Tax Exemption (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...”\textsuperscript{14} This program offers sales and use tax exemptions on:

\textsuperscript{11} s. 288.1254(6)(a), F.S.
\textsuperscript{12} s. 26, ch. 2011-76. L.O.F.
\textsuperscript{13} s. 15, ch. 2012-32. L.O.F.
\textsuperscript{14} 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.”
• The fabrication labor used in set design and construction for qualified motion pictures;\(^{15}\)
• Motion picture or video equipment and sound recording equipment that is purchased or leased for use in this state for certain entertainment production activities;\(^{16}\)
• The sale of master tapes, records, films, or video tapes;\(^{17}\) and
• The lease or rental of real property used as an integral part of the performance of qualified motion picture production services.\(^{18}\)

In 2000, the Legislature created a single application process to obtain a certificate of exemption from sales and use taxes. Qualified production companies seeking the exemption 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 eligible for a 90-day certificate of exemption.

Applications include an estimate of the planned purchases of exempt items. It is from these documents 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 the applications, OFE has estimated that all qualified production companies received $52.5 million in exemptions between FY 2013-14 and 2015-16. Unlike the tax credit program, production companies are not required to validate actual purchases.

The sales tax exemption is also available to qualified production companies receiving tax credits. Based on the qualified expenditures for that subset of companies, they may have received as much as $12.4 million in exemptions between FY 2013-14 and 2015-16. This number is based on the amount of exempt sales as a percentage of total production expenditures as reported on the applications.

**Florida Local Incentive Programs**

Since the state tax credit program expired in 2016, local governments have begun to offer their own production incentives. Miami-Dade County has enacted a program that provides $100,000 to qualified productions that spend at least $1 million in Miami-Dade, if at least 70 percent of the entire production takes place within the county.\(^{19}\) Similarly, Hillsborough County offers a 10 percent rebate for companies that spend at least $100,000 on production and post-production.\(^{20}\) In this same vein, the City of

\(^{15}\) Enacted in 1969, s. 212.06(1)(b), F.S.
\(^{16}\) 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.

\(^{17}\) 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

\(^{18}\) Enacted in 1987, s. 212.031(1)(a)9, F.S.

\(^{19}\) Variety: Miami-Dade County Spearheads New Film Incentive Initiative in Florida – August 2017

\(^{20}\) http://filmtampabay.com/, accessed 10/31/2017
Jacksonville offers a sliding scale of incentives from between 5 percent to 15 percent based on the qualified expenditures of the production. The minimum a production company must spend to receive an incentive is $500,000.\textsuperscript{21} It appears that local incentives could offer a better ROI to local governments than a statewide program does for the state. A report on the economic impact of film production in the state of New York, commissioned by the Empire State Development Corporation, concluded that of the ROI of 1.09 for New York film productions, the state receives $0.49 of the tax revenue, with local governments receiving $0.60.\textsuperscript{22} This analysis has not independently researched that question.

Other State’s Programs
Florida currently ranks 3\textsuperscript{rd} in the nation for its number of film and television production companies. California and New York are 1\textsuperscript{st} and 2\textsuperscript{nd}, 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.”\textsuperscript{23}

The industry is largely concentrated in California, which accounts for 40.0\% of total domestic production. New York holds 13.9\% of industry establishments. Florida follows with 5.2\% of industry establishments. Filming is done in studios and on location throughout the country.\textsuperscript{24}

The number of states offering production incentives has decreased in recent years as a result of strained state budgets and increased scrutiny regarding the true economic benefit of these incentive programs. In 2009, 44 states offered film incentives. By 2016, that number decreased to 37, with some of the remaining states limiting the expanse of their programs. Louisiana, a previously uncapped state that attracted high budget films, changed to an annual cap (now $180 million per year, down from $246 million in 2014)\textsuperscript{25}. New Mexico, another state that attracted high budget films and television series, placed a $50 million cap on its annual spending\textsuperscript{26} in 2012.\textsuperscript{27}

While many states have reduced available film and television production incentives, Georgia has expanded its program. Georgia has no cap on tax credit awards to individual projects and no annual cap on total credits for all approved projects. Further, the full salaries of resident or non-resident actors, contractors, and production staff are eligible as qualified expenditures for reimbursement.\textsuperscript{28} In contrast, Florida’s tax credit program limited qualified expenditures to salaries for Florida residents, capped at $400,000 per resident.

Georgia is estimated to spend $1.12 billion dollars in incentives in Fiscal Years 2016 through 2018.\textsuperscript{29} In contrast, Florida approved $133.6 million in tax credits in the most recent three complete fiscal years of the program (Fiscal Years 2014 through 2016).

\textsuperscript{24} Ibid.
\textsuperscript{25} National Conference of State Legislatures - State Film Production Incentives and Programs, June 2016
\textsuperscript{26} Santa Fe Reporter - The film industry brings big money to New Mexico, but does the incentive cap mortgage its potential future success? January 2017
\textsuperscript{27} New Mexico Film Office - http://www.nmfilm.com/summary_1.aspx
\textsuperscript{28} There is no salary cap on individuals paid by 1099, personal service contract or on loan. Source – Georgia.org
\textsuperscript{29} Georgia Tax Expenditure Report for FY 2018, Georgia State University, December 2016.
Over the last fifteen years, the share of film industry jobs and total wages have significantly increased in Georgia. Florida and New Mexico have seen relatively modest declines or no increase in shares, while Louisiana has seen a recent decline. The four states’ wage and job growth relative to the US industry as a whole is shown in Charts 1 and 2.

Ultimately, the shares of industry activity occurring in each state may be affected by the state’s investment; however, this does not mean that the investment is necessarily worthwhile or pays for itself. The answer to that question depends on an analysis of economic indicators and the return on investment for each state.
Chart 1
Source: Bureau of Labor and Statistics
Share of Film Industry Jobs Relative to the US
(Private Sector Only)
Florida | Georgia | Louisiana | New Mexico
---|---|---|---
2001 | 3.2% | 2.9% | 2.7% | 2.4% | 2.1% | 2.0%
2002 | 2.2% | 2.4% | 2.3% | 2.4% | 2.3% | 2.2%
2003 | 1.7% | 1.8% | 1.8% | 1.8% | 2.0% | 2.0%
2004 | 1.9% | 1.7% | 1.7% | 1.8% | 1.8% | 1.9%
2005 | 2.1% | 2.3% | 2.3% | 2.3% | 2.4% | 2.4%
2006 | 2.1% | 2.2% | 2.2% | 2.2% | 2.2% | 2.2%
2007 | 1.9% | 1.9% | 1.9% | 1.9% | 1.9% | 1.9%
2008 | 1.7% | 1.7% | 1.7% | 1.7% | 1.7% | 1.7%
2009 | 1.5% | 1.5% | 1.5% | 1.5% | 1.5% | 1.5%
2010 | 1.3% | 1.3% | 1.3% | 1.3% | 1.3% | 1.3%
2011 | 1.1% | 1.1% | 1.1% | 1.1% | 1.1% | 1.1%
2012 | 0.9% | 0.9% | 0.9% | 0.9% | 0.9% | 0.9%
2013 | 0.8% | 0.8% | 0.8% | 0.8% | 0.8% | 0.8%
2014 | 0.7% | 0.7% | 0.7% | 0.7% | 0.7% | 0.7%
2015 | 0.8% | 0.8% | 0.8% | 0.8% | 0.8% | 0.8%
2016 | 0.7% | 0.7% | 0.7% | 0.7% | 0.7% | 0.7%

Chart 2
Source: Bureau of Labor and Statistics
Share of Film Total Wages Relative to the US
(Private Sector Only)
Florida | Georgia | Louisiana | New Mexico
---|---|---|---
2001 | 3.2% | 2.9% | 2.7% | 2.4% | 2.1% | 2.0%
2002 | 2.2% | 2.4% | 2.3% | 2.4% | 2.3% | 2.2%
2003 | 1.7% | 1.8% | 1.8% | 1.8% | 2.0% | 2.0%
2004 | 1.9% | 1.7% | 1.7% | 1.8% | 1.8% | 1.9%
2005 | 2.1% | 2.3% | 2.3% | 2.3% | 2.4% | 2.4%
2006 | 2.1% | 2.2% | 2.2% | 2.2% | 2.2% | 2.2%
2007 | 1.9% | 1.9% | 1.9% | 1.9% | 1.9% | 1.9%
2008 | 1.7% | 1.7% | 1.7% | 1.7% | 1.7% | 1.7%
2009 | 1.5% | 1.5% | 1.5% | 1.5% | 1.5% | 1.5%
2010 | 1.3% | 1.3% | 1.3% | 1.3% | 1.3% | 1.3%
2011 | 1.1% | 1.1% | 1.1% | 1.1% | 1.1% | 1.1%
2012 | 0.9% | 0.9% | 0.9% | 0.9% | 0.9% | 0.9%
2013 | 0.8% | 0.8% | 0.8% | 0.8% | 0.8% | 0.8%
2014 | 0.7% | 0.7% | 0.7% | 0.7% | 0.7% | 0.7%
2015 | 0.8% | 0.8% | 0.8% | 0.8% | 0.8% | 0.8%
2016 | 0.7% | 0.7% | 0.7% | 0.7% | 0.7% | 0.7%
METHODOLOGY

Statewide Model
EDR is tasked with evaluating the economic benefits of economic development incentive programs. 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.” 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.

EDR uses the Statewide Model to estimate the ROI for the economic development incentive programs. The Statewide Model is a dynamic computable general equilibrium (CGE) model that simulates Florida’s economy and government finances. The Statewide Model is enhanced and adjusted each year to reliably and accurately model Florida’s economy. These enhancements include updating the base year the model uses as well as adjustments to how the model estimates tax collections and distributions.

Among other things, the Statewide Model captures the indirect and induced economic activity resulting from the direct program effects. This is accomplished by using large amounts of data specific to the Florida economy and fiscal structure. Mathematical equations 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. 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” using static analysis estimates of 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 grants. Generally, the combined annual direct effects (“shocks”) took the form of:

- Removal of the incentive payments from the state budget, with corresponding awards to businesses as subsidies to production.
- Inclusion of capital investments or residual capital benefits related to the projects.
- Increased outputs based on retained and created jobs attributed to the projects.

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31 The statewide economic model was developed using GEMPACK software with the assistance of the Centre of Policy Studies (CoPS) at Victoria University (Melbourne, Australia).
32 Reports prior to January 1, 2017 have 2009 as the base year. Reports as of January 1, 2017 have 2011 as the base year. In addition to the change of the base year, these reports more closely match Florida’s sales tax collections. These enhancements need to be taken into consideration when comparing reports to other review cycles.
33 These equations represent the behavioral responses to economic stimuli – to changes in economic variables.
34 The business reactions simulate the supply-side responses to the new activity (e.g., changes in investment and labor demand).
35 In economics, a shock typically refers to an unexpected or unpredictable event that affects the economy, either positive or negative. In this regard, 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 introduced to remove the impact of the incentives on the economy.
After the direct effects are developed and estimated, the model is then used to estimate the additional—indirect and induced—economic effects generated by the programs, as well as the supply-side responses to the new activity, where the supply-side responses are changes in investment and labor demand 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:

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

EDR’s calculation of the return on investment uses 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 domestic product, all of which are included in the model results.

**Evaluation Considerations**

As with previous evaluations, EDR’s calculation of ROI is based on the net economic impact rather than the gross economic activity generated by or attributed to program projects. The impact is due to new economic activity induced by a state subsidy after taking account of what would have occurred in the absence of this particular investment. EDR employs a number of approaches to isolate the new economic activity, including an assessment of the “but-for” assertion and culling “Market and Resource Dependent” projects. The resulting net economic benefit may then be proportionately attributed to all project contributors (in this case, the tax credits and the value of the tax exemptions). Culling “Market and Resource Dependent” projects and proportionally attributing the economic benefit are strategies used to derive a credible estimate of each program’s ROI.

Another evaluation consideration is the potential economic impact of “Film Induced Tourism” (FIT), which describes the phenomenon of film and television viewers visiting the specific places or regions where filming occurred or is depicted in the film. 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.

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36 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 the incentives simply displaces other employment and economic activity that would have occurred in the absence of the incentive. There is no net economic expansion, as one of two events occurs: (1) existing businesses shed jobs as their market share decreases; or, (2) a competitor that would have filled the same vacuum without receiving an incentive is displaced. In these cases, neither economic benefits nor a return to the state should be assigned to the projects. In contrast, a business is not considered market or resource dependent if it is likely that it exports a majority of its goods and services out of the state.
EDR’s 2015 “Literature Review Regarding the Impact of State Film and Related Entertainment Incentive Programs” addressed independent research evaluating FIT and the reservations of independent analysts regarding proponent studies. The Review concluded the following:

“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, 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. More recent proponent-sponsored research does not alter this conclusion. Additionally, Florida-specific FIT-research measured the gross economic activity to the local area, rather than the net economic impact to the state resulting from out-of-state visitors. These studies largely capture spending by in-state residents, which substitutes for spending in other areas of the local economy.

Further, EDR’s 2015 analysis of the tax credit program cited a 2015 survey of Florida destination marketing organizations revealing they do not “believe filmed locations impacted tourists’ decisions” and the “substantial marketing efforts made by governmental and private sources” outweighed the state’s investment in the film and television incentives. A 2018 update of this survey continued to show no tourism activity that was primarily attributable to television or films.

Description of the Data: Tax Credit Program
The Office of Film and Entertainment (OFE), Department of Economic Opportunity and the Department of Revenue were the primary sources of data for the review. These agencies provided EDR with information for each project or business that received state dollars during Fiscal Years 2013-14, 2014-15 and 2015-16. 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.

For the tax credit program, OFE provided the following information:

- The number of productions awarded tax credits from FY 2013-14 through FY 2015-16.
- Total jobs created by productions that completed their audit reviews and were awarded tax credits within the review period. 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 review period.
- Qualified expenditures for the productions that have completed their audit reviews and were awarded tax credits within the review period.

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37 Appendix, “Return on Investment for the Entertainment Industry Incentive Programs, 1/1/15.” Available at http://edr.state.fl.us/Content/returnoninvestment/EntertainmentIndustryIncentivePrograms.pdf
38 Ibid. p. 7.
The amount of tax credits that were awarded to productions that have completed their audit reviews within the review period. These may or may not reflect tax credits used on a tax return during the time period.

Only data related to the three-year review period was considered in the evaluation.

OFE reported the following number of applicants were awarded tax credits: 66 in FY 2013-14; 94 in FY 2014-15; and 43 in FY 2015-16. Table 1 displays additional information provided on the tax credit program during the review period. Of the $296 million allocated to the program, there remains additional tax credits that have been certified but not awarded. This future liability is displayed in Table 2.

### Table 1

<table>
<thead>
<tr>
<th>Eligible Wages</th>
<th>Digital Media &amp; Video Game</th>
<th>Motion Picture, TV, Commercial</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2013-14</td>
<td>$ 16,566,810</td>
<td>$ 125,832,702</td>
<td>$ 142,399,512</td>
</tr>
<tr>
<td>FY 2014-15</td>
<td>$ 2,776,508</td>
<td>$ 123,307,629</td>
<td>$ 126,084,137</td>
</tr>
<tr>
<td>FY 2015-16</td>
<td>$ 65,400,521</td>
<td>$ 93,147,914</td>
<td>$ 158,548,435</td>
</tr>
<tr>
<td>Grand Total</td>
<td>$ 84,743,839</td>
<td>$ 342,288,245</td>
<td>$ 427,032,084</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-Wage, Non-hotel Qualified Expenditures</th>
<th>Digital Media &amp; Video Game</th>
<th>Motion Picture, TV, Commercial</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2013-14</td>
<td>$ 640,605</td>
<td>$ 97,537,620</td>
<td>$ 98,178,224</td>
</tr>
<tr>
<td>FY 2014-15</td>
<td>$ 352,183</td>
<td>$ 95,084,722</td>
<td>$ 95,436,905</td>
</tr>
<tr>
<td>FY 2015-16</td>
<td>$ 36,614,784</td>
<td>$ 77,691,076</td>
<td>$ 114,305,860</td>
</tr>
<tr>
<td>Grand Total</td>
<td>$ 37,607,572</td>
<td>$ 270,313,418</td>
<td>$ 307,920,989</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Expenditures</th>
<th>Digital Media &amp; Video Game</th>
<th>Motion Picture, TV, Commercial</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2013-14</td>
<td>$ 17,214,929</td>
<td>$ 229,917,571</td>
<td>$ 247,132,501</td>
</tr>
<tr>
<td>FY 2014-15</td>
<td>$ 3,129,000</td>
<td>$ 225,417,808</td>
<td>$ 228,546,808</td>
</tr>
<tr>
<td>FY 2015-16</td>
<td>$ 102,035,289</td>
<td>$ 173,478,443</td>
<td>$ 275,513,732</td>
</tr>
<tr>
<td>Grand Total</td>
<td>$ 122,379,218</td>
<td>$ 628,813,822</td>
<td>$ 751,193,041</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tax Credits Awarded</th>
<th>Digital Media &amp; Video Game</th>
<th>Motion Picture, TV, Commercial</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2013-14</td>
<td>$ 3,054,392</td>
<td>$ 48,400,108</td>
<td>$ 51,454,500</td>
</tr>
<tr>
<td>FY 2014-15</td>
<td>$ 703,814</td>
<td>$ 47,037,085</td>
<td>$ 47,740,899</td>
</tr>
<tr>
<td>FY 2015-16</td>
<td>$ 27,220,697</td>
<td>$ 38,213,366</td>
<td>$ 65,434,063</td>
</tr>
<tr>
<td>Grand Total</td>
<td>$ 30,978,903</td>
<td>$ 133,650,559</td>
<td>$ 164,629,462</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transferred Credits Used</th>
<th>Digital Media &amp; Video Game</th>
<th>Motion Picture, TV, Commercial</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2013-14</td>
<td>$ 2,929,685</td>
<td>$ 45,950,528</td>
<td>$ 48,880,213</td>
</tr>
<tr>
<td>FY 2014-15</td>
<td>$ 606,159</td>
<td>$ 36,192,581</td>
<td>$ 36,798,740</td>
</tr>
<tr>
<td>FY 2015-16</td>
<td>$ 17,269,805</td>
<td>$ 30,645,974</td>
<td>$ 47,915,779</td>
</tr>
<tr>
<td>Grand Total</td>
<td>$ 20,805,649</td>
<td>$ 112,789,083</td>
<td>$ 133,594,732</td>
</tr>
</tbody>
</table>

### Table 2

<table>
<thead>
<tr>
<th>Fiscal Years</th>
<th>Tax Credits Awarded</th>
<th>Transferred Tax Credits Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-11</td>
<td>$ 67,282,069</td>
<td>$ 43,324,164</td>
</tr>
<tr>
<td>2013-14</td>
<td>$ 164,629,462</td>
<td>$ 133,594,732</td>
</tr>
<tr>
<td>Grand Total</td>
<td>$ 231,911,531</td>
<td>$ 176,918,896</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description of the Data: Sales Tax Exemption Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Office of Film and Entertainment (OFE), Department of Economic Opportunity and the Department of Revenue were the primary sources of data for the review. These agencies provided EDR with information for each business that received a certificate of exemption during Fiscal Years 2013-14, 2014-2015, and 2015-2016.</td>
</tr>
</tbody>
</table>
15 and 2015-16. However, there are limitations regarding the data that could greatly distort the results of the analysis.

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 generally industry specific. Unlike the tax credit program, the relevant exemptions are not contingent on any performance-based criteria such as job creation or capital investment.

The tax exemption data provided by the OFE is compiled from information provided 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.

Data provided by OFE for exemption expenditures was 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. Data previously provided by OFE show that between the initial estimate of expenditures and the final audited expenditures, production companies overestimated their planned expenditures by 27 percent.

For the sales tax exemption program, DEO provided the data submitted by production companies that had received sales tax exemption certificates. Data in Table 3 reflects the estimates made by the production company before receiving their tax certificates.

<table>
<thead>
<tr>
<th>FY</th>
<th>Total Wages</th>
<th>Total Exempt Expenditures</th>
<th>Total Non-Exempt Expenditures</th>
<th>Estimated Exempted Sales Tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2013-14</td>
<td>$667,140,922</td>
<td>$252,105,588</td>
<td>$125,270,069</td>
<td>$15,126,335</td>
</tr>
<tr>
<td>FY 2014-15</td>
<td>$746,280,037</td>
<td>$299,064,313</td>
<td>$121,471,718</td>
<td>$17,943,859</td>
</tr>
<tr>
<td>FY 2015-16</td>
<td>$706,466,093</td>
<td>$318,668,627</td>
<td>$128,486,760</td>
<td>$19,120,118</td>
</tr>
</tbody>
</table>

Another limitation regarding the data is the assumption that “but-for” the tax exemption, the economic activity would not have otherwise occurred. Ideally, the ROI analysis would 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.
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, 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 assumed to be exported to the rest of the world. The rest of the world is defined as other states or the international market.

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39 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.
Key Terms
In the pages that follow, the analysis for each program includes diagnostic tables describing the composition and statistics of the projects under review. Key terms used in the tables are described below:

State Payments in the Window $(M)$ – Represents the amount of state payments made to the program in each fiscal year.

Total Net State Revenues $(M)$ – Represents the amount of new state revenue generated by the program in each fiscal year.

Personal Income (Nominal $(M)$) – Reflects 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 2010-11 $(M)$) – Reflects total after-tax income received by persons; it is the income available to persons for spending or saving.

Real Gross Domestic Product (Fixed 2010-11 $(M)$) – Measures 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 2010-11 $(M)$) – Reflects 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 2010-11 $(M)$) – Consists of sales, or receipts, and other operating income, plus commodity taxes and changes in inventories.

Total Employment (Jobs) – Provides 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, including survivors from the previous year, births, special populations, and three types of migrants (economic, international, and retired).
ANALYSIS AND FINDINGS

Tax Credit Program
For this analysis, the Office of Film and Entertainment (OFE) provided information for the estimated qualified expenditures for film and digital media productions participating in the tax credit program by type of project. In addition, information was provided on tax incentives awarded, transferred and used on a return.

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, 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 Statewide Model 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 review period. They provided information on qualified expenditures, including a breakout of wages. Projects make additional expenditures that 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 Statewide Model show that between 18 to 31 percent of purchased inputs come from outside the state for the industries under analysis. A figure of 25 percent was used to estimate non-qualified expenditures. A further adjustment was made to the expenditures to include a measure of return-to-capital. This transforms 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 Statewide 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 tax credit program was new to the state. That is, it would not have occurred absent the incentives. In some instances, this 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, this analysis will overstate the benefits to Florida.

Finally, only a portion of the economic benefit was attributed to the tax exemption program as tax credit recipients were also granted tax exemptions for qualified purchases.

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41 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.
Results for the Tax Credit Program

<table>
<thead>
<tr>
<th></th>
<th>13-14</th>
<th>14-15</th>
<th>15-16</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Income Nominal $ (M)</td>
<td>295.7</td>
<td>458.2</td>
<td>449.0</td>
<td>1,202.9</td>
</tr>
<tr>
<td>Real Disposable Personal Income Fixed 2010-11 $ (M)</td>
<td>236.5</td>
<td>363.0</td>
<td>351.4</td>
<td>950.9</td>
</tr>
<tr>
<td>Real Gross Domestic Product Fixed 2010-11 $ (M)</td>
<td>378.9</td>
<td>564.2</td>
<td>524.5</td>
<td>1,467.6</td>
</tr>
<tr>
<td>Consumption by Households and Government Fixed 2010-11 $ (M)</td>
<td>198.7</td>
<td>310.0</td>
<td>304.9</td>
<td>813.5</td>
</tr>
<tr>
<td>Real Output Fixed 2010-11 $ (M)</td>
<td>697.1</td>
<td>991.8</td>
<td>875.2</td>
<td>2,564.2</td>
</tr>
</tbody>
</table>

The analysis of the tax credit program in this review period (Fiscal Years 2013-14, 2014-15 and 2015-16) resulted in an ROI of 0.18. While the ROI is positive, the program only returns eighteen cents in tax revenues for every dollar of tax credits used. This result falls below the reported 0.43 from the previous analysis in 2015. While net state revenues are only $2.1 million more per year in this analysis than the previous analysis ($7.8 million vs. $5.7 million in 2015), the state incentives taken by production companies average $22.1 million more per year ($44.5 million vs. $22.4 million in 2015).

There was a total of $751.2 million in qualified expenditures during the review period of the analysis. It is estimated that there was an additional $104.8 million in non-qualified expenditures. Of the total projected expenditures of $856.0 million, it is estimated that there was $206.0 million in taxable expenditures that were exempt from sales taxes under the tax exemption 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 $984.6 million dollars. Due to “bundling” of the tax credit and tax exemption incentives, not all of this increased output can be assumed to have occurred solely because of the tax credit program. Under the assumption that a dollar saved in sales taxes on exempt purchases has the same inducement as a dollar received in tax credits, $69.8 million of the estimated output was allocated to the tax exemption program.

The state’s incentives during the review period are divided into credits awarded based on qualified expenditures and credits actually used on a return. There were $158.3 million in credits awarded within the review period; this means the production had finished its audit and that DEO had approved the credits to be used on a return. During this same review period, $133.6 million were used on a tax return. Of the credits used, 99.7 percent were transferred—that is, sold at a discount—to an unaffiliated party. Of the credits used, $125.0 million, or 93.6 percent, were sales tax credits and $8.5 million, or 6.4 percent, were corporate tax credits. None of the sales tax credits were used by the original recipient.

42 In the 2015 analysis, two scenarios were run. The first analysis measured the cost of the program by tax credits used on a return during the review period, and resulted in an ROI of 0.43. This scenario reflects the lag between when a credit is awarded and actually used against a tax obligation and was the official reported result. The second analysis measured the cost of the program by tax credits awarded during the review period, and resulted in an ROI of 0.25. This scenario included the full potential cost of the credits to the state, whether or not they were used on a return during the review period.
Notwithstanding the failure of the program to break even, it does have a broader economic value to the state as a whole. Personal income (in nominal dollars) is on average $401 million per year higher during the period, and real GDP within the state is $489.2 million (in 2010-11 dollars) higher per year. In addition, there were an average of 1,914 more jobs each year during the analysis period. Most of these were filled by current residents, but some were filled by new residents attracted to the state by the increased economic activity—Florida resident population is on average 576 persons higher per year than it would have been in the absence of the program.
Sales Tax Exemption Program
For this analysis, the Office of Film and Entertainment (OFE) provided projected expenditures from each business that received a certificate of exemption during the period of review. As discussed in the previous section, the projected expenditures are likely overstated, and the results should be reviewed with this in mind.

Notwithstanding these limitations in the data due to the program’s design, this analysis assumes that the tax exemption program induces companies to undertake activity in Florida. It also attributes that activity to the exemption under certain circumstances. Since it is unlikely that long-established Florida companies have been induced to undertake activity that they otherwise would not, the analysis only considers the projected tax-exempt expenditures from companies established after 2000. This year was chosen because the Legislature created a single application process to obtain a certificate of exemption from sales and use taxes in that year. The analysis assumes production companies that were established in Florida prior to 2000 were not incentivized to locate to Florida by the exemption program in its current form.

Projected expenditures from production companies that are reliant on Florida’s markets or resources were excluded from the data as well. 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.

While it is likely that additional tax-exempt production companies are dependent on Florida markets or resources, the analysis attempted to capture all expenses from mobile companies that had the option to undertake their productions in another state.

Finally, a portion of the economic benefit was attributed to the tax credit program as tax exemption recipients were also granted tax credits for qualified expenditures.
Results for the Sales Tax Exemption Program

<table>
<thead>
<tr>
<th></th>
<th>13-14</th>
<th>14-15</th>
<th>15-16</th>
<th>Total</th>
<th>Average per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Payments in the Window $ (M)</td>
<td>15.1</td>
<td>17.9</td>
<td>19.1</td>
<td>52.2</td>
<td></td>
</tr>
<tr>
<td>Total Net State Revenues $ (M)</td>
<td>7.3</td>
<td>12.8</td>
<td>10.0</td>
<td>30.1</td>
<td></td>
</tr>
<tr>
<td>Return-on-Investment by Year</td>
<td>0.48</td>
<td>0.71</td>
<td>0.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return-on-Investment for the 3 year period</td>
<td></td>
<td></td>
<td></td>
<td>0.58</td>
<td></td>
</tr>
</tbody>
</table>

The analysis of the tax exemption program resulted in a ROI of 0.58. That is, for every dollar of foregone sales tax collections the program returned fifty-eight cents in other state revenue collections. This is slightly higher than the 2015 ROI of 0.54. Total expenditures were also higher in the current review ($3.36 billion vs. $3.15 billion in 2015).

The analysis suggests that approximately $3.01 billion of the $3.97 billion in output would have occurred even without the tax exemptions. Most of this is the estimated output of firms that have a permanent presence in Florida. The remainder is related to productions at Florida locations or events that did not meet the “but-for” assumption. Another $80.2 million of estimated output was allocated to the tax credit program due to the “bundling” with the tax credit projects.

The sales tax exemption program had an estimated $869.8 million in tax-exempt spending at a cost of $52.2 million in foregone sales tax revenue. After making the adjustments described above, this translates into just $1.32 billion in new activity per year. While the total 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. 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 is accounted for in the analysis.

Similar to the tax credit program, this program also has a broader economic value to the state as a whole. Personal income (in nominal dollars) is on average $522.8 million per year higher during the period, and real GDP within the state averages $568.8 million (in 2010-11 dollars) higher per year. In addition, there was an average of 2,231 more jobs each year during the analysis period.
Conclusion
The analysis shows that both the tax credit and the tax exemption programs have positive ROIs, although neither generates sufficient tax revenues to offset the cost of the programs. 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 sales tax exemption program that clearly did not meet the “but for” assumption, all activity under the tax credit program was assumed to be new to the state. However, the continued use of the tax exemption program indicates that production in Florida endures despite the expiration of the tax credit program.

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 are used as “qualified expenditures.” Capital investments can be captured if they are qualified expenditures in the tax credit program, or if they are within an exempt expenditure category in the tax exemption program. Requiring capital expenditures is a way to enhance the ROI. If there were capital investments that were not reported by the applicants of either program, including this information in the analyses would have positively affected the programs’ ROIs.

Another issue that affects the tax credit program’s efficiency, if not the ROI, is the transferability of credits. While transferability of credits is designed to produce ready cash for applicants, the recipient projects do not receive the full benefit of the intended 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 tax credit 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 attempting to accomplish the same end. In turn, this overstates the ROI for the tax credit program relative to the same expenditures for a grant program.