NEW JERSEY ECONOMIC DEVELOPMENT AUTHORITY

MEMORANDUM

TO: Treasurer Andrew P. Sidamon-Eristoff

FROM: Caren S. Franzini, Chief Executive Officer, EDA

DATE: February 17, 2011

RE: New Jersey Film and Digital Media Tax Credit Program

This memo summarizes New Jersey Economic Development Authority (EDA) and Treasury review of the New Jersey Film and Digital Media Tax Credit Program, and recommends that the program be terminated.

Background: New Jersey's Program

In his FY2011 Budget Message, Governor Chris Christie called upon the EDA to undertake a review of the New Jersey Film and Digital Media Tax Credit Program to determine the program's effectiveness and to inform recommendations going forward regarding the program's future funding. The $15 million program was created by the New Jersey Legislature in 2005, amended in 2007 to create additional subsidies for digital media. In accordance with the law, the program is due to sunset in 2015. In FY2011, activity under the program was suspended.

In the summer of 2010, EDA engaged the New Jersey Institute of Technology (NJIT) to conduct a comprehensive review of the program to determine its economic impact and to provide recommendations (attached). NJIT's review determined that the legislative intent of the program is to cost effectively create high wage and high quality jobs in New Jersey, stimulate new infrastructure and create predictable new revenue streams to the State. The review found that in 2009, there were 1,682 jobs in the film industry with average wages of $47,734. The report contends that the program is cost effective, though the highest wage jobs in the industry still remain out of state. The report concluded that the existing program is estimated to generate and maintain significant employment in New Jersey while "breaking even" on the program costs to the State.

However, please note that this assessment of "break-even" is based on the $10.1 million collected in New Jersey state and local tax collections in 2009 from the jobs generated by the entire film industry, not just the jobs generated by the program subsidy. Under the more conservative review of the 2009 New Jersey program eligible film spend and the economic impact attributable to the program, 913 jobs (average wage of $47,734) resulted in New Jersey state and local tax collections of $5.5 million and a cost to the state of approximately $4.5 million ($10 million State credits less $5.5 million tax revenue). As such, the NJIT conclusion that the program pays for itself is based on the arguable position that the entire film industry in New Jersey is dependent on the film tax program, which is not a proven fact in the report.

In January, 2011, upon your request, Chief Economist Charles Steindel prepared a review of the NJIT report and disagreed with the findings. In the attached memorandum, Dr. Steindel notes that the NJIT report:

- Provides little or no grounds for the continuation or expansion of the program;
- Does not present a coherent case for subsidizing the industry;
- Contains estimates of changes in the industry's activity on the New Jersey economy that "look very problematic;" and
- Reflects accounts of other states' actions that are "stale."

National Review of State Subsidies for Film

In the time since the NJIT report was commissioned, many states that are in dire financial situations have also taken steps to re-evaluate their film incentive programs. In November 2010, the Center on Budget and Policy Priorities released a report State Film Subsidies: Not Much Bang for Too Many Bucks[1] (attached) that concluded state film subsidies are costly to states and generous to movie producers. It found that subsidies fail to produce promised benefits because the highest paying jobs usually go to talent brought in from other states. Jobs for in state residents are usually part time and low paying. It also found that supporters of subsidies rely on flawed studies. The study observed that the only independent, in depth empirical study was undertaken by the Massachusetts Department of Revenue which found that in 2008 the State lost $88,000 in tax revenue for every new job created by the subsidy and filled by a Massachusetts resident.

Also attached is an article (New York Times, January 19, 2011, *"State's Weigh Cuts in Hollywood Subsidies")* that provides background on the states that have eliminated or suspended their programs – Arizona, Iowa and Kansas – as well as those reviewing the efficacy of their existing programs – Pennsylvania, Michigan and New Mexico.

Recommendation

The EDA understands that the requested review of New Jersey's program was predicated by New Jersey's need for austerity in the most challenging economic and fiscal situation experienced in decades. The State's budget must balance the costs of fulfilling the needs of its residents with fiscally responsible expenditures for economic development incentives that stimulate the economy, provide high-paying, permanent jobs, and create predictable revenue streams. Given the factors cited by Dr. Steindel, EDA's staff review of national studies, and the questionable returns that the program provides to the taxpayers of New Jersey, the EDA does not support the continuation of the film tax credit program. We recommend that going forward budget appropriations are provided only to fulfill existing obligations for previously approved applicants.

cc: Al Koeppe, EDA Chairman

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[1] Center on Budget and Policy Priorities State Film Subsidies: Not Much Bang for Too Many Bucks, 11/17/2010 by Robert Tannenwald

New Jersey's Science & Technology University

Program Evaluation: New Jersey Film and Digital Media Tax Credit Programs

Prepared for the New Jersey Economic Development Authority

October 2010

njit.edu

THE EDGE IN KNOWLEDGE

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Executive Summary

Under the NJIT- NJEDA Memorandum of Understanding, NJIT was to evaluate the New Jersey Film Tax Credit Program and the Edison Innovation Digital Media Tax Credit Program to determine program effectiveness. The effectiveness of the New Jersey programs can only be evaluated in the context of the national and international tax credit environment. If no jurisdiction offered any film tax credits then there would be a level playing field where New Jersey would gain the share of film production that was supported by the substantial native resources of the State. Unfortunately, the behavior of other states or international governmental entities cannot be controlled by New Jersey, so we start from the understanding that the existing environment of state and international tax credits will continue to exist.

Overall and given existing market conditions, we have determined that the film program is a cost effective way for New Jersey to create and maintain jobs in the film industry, though the highest wage jobs still remain out of state. While the digital media program is too small for meaningful quantitative analysis, we recommend that it be refocused and restructured.

As determined in this study, the primary economic development goal of these programs is to cost effectively create high wage and high quality jobs in New Jersey. Secondary goals include the development of new infrastructure and predictable new revenue streams in New Jersey. In order to evaluate the programs with respect to these goals, we conducted a process evaluation to aid in understanding how a program's plans and objectives are put into action. This qualitative analysis identifies problems and obstacles so that program performance can be improved. We then conducted a quantitative analysis of the film program which allow for specific analysis of costs and benefits. We make recommendations to improve the efficiency of these programs and identify "best practices" from other states that might be adopted by New Jersey.

Program participants and potential participants of the film program, typically film producers, are highly aware of and sensitive to the existence of film tax credit programs when making their location decisions. The existing application structure is simple and workable and the current 20 percent level of the credit is sufficient to attract new productions to New Jersey. The digital media program is very broadly defined in the statute and has no well defined constituency. Therefore we recommend that the existing digital media program be refocused to a narrower sector of digital media including digital special effects, digital animation and video game development and more closely integrated into the existing film program and administered by the NJ Film Commission.

An increase in the annual cap from the current $10 million per year to a new higher level should further increase job creation in New Jersey and would allow for an increase in television production that would foster the secondary goals of new infrastructure development and more predictable revenue streams. New Jersey already has significant natural endowments which make it an attractive place for television production and could attract significant new activity.

The existing film program is estimated to generate and maintain significant employment in New Jersey while “breaking even” on net tax transfers. So the existing $10 million credit seems to generate business activity that pays about the same $10 million in New Jersey local taxes. A larger program should continue to increase employment while having only a modest effect on net tax transfers.

Recommendations

The following recommendations are based on the analysis done in this report.

Based on our understanding that the film tax credit program is a cost effective way to encourage the creation and maintenance of jobs in the film industry in New Jersey, and that the 2011 moratorium on the film tax credit programs was effective in curtailing film production in New Jersey, ***we recommend a continuation of the film tax credits as an economic development program to help maintain and develop an active and growing film industry in New Jersey***.

The film tax credit program and process are well designed and well accepted by the industry. The 20% credit level is sufficient to attract business to New Jersey even though it is lower than for some other states. The simple structure of the credit program encourages participation by film producers. ***We do not recommend making significant changes to the structure of the existing film tax credit program.***

The digital media tax credit program is not well designed and has not attracted attention from the relevant industry participants, therefore ***we recommend that the current digital media credit be restructured into a program that is more similar to the film program and focused on a limited number of important applications*** like digital special effects for films, digital animation and video game design and production. These could be incorporated into the existing New Jersey film commission.

Although the primary goal of the statute is to create new high paying and high quality jobs in New Jersey, some secondary goals might be to encourage greater infrastructure development and more stable revenue streams. ***We recommend that one way to encourage further infrastructure development and a steadier revenue stream would be to encourage greater investment into television production.*** New Jersey already has a significant natural endowment of attributes that make it attractive for television production. If the second and subsequent years of television series were automatically placed at the head of the queue for new credits, then this would further encourage successful series to come to and stay in New Jersey.

Based on our understanding that the film tax credit program is a cost effective way to promote job creation and maintenance, our economic model suggests a larger program should be even more effective in increasing employment. If the goal is to increase focus on television production, then a larger program will be needed to attract significant new series to produce in New Jersey. So ***we recommend an increase in the size of the film credit program from the***

current cap of $10 million per year to accommodate increased television production. A provision for a discounted direct state buyback of the issued credits could also contribute to increase the efficiency of this program. A sunset provision on this new cap level would allow for a new study of the effectiveness to be conducted in the future.

Finally, we understand that workforce development is an important part of developing a growing industry. Instead of creating a traditional training program a more cost effective way of building film and television production skills in New Jersey is to create a special sub cap for independent film production in New Jersey. As one of the television producers explained it, major television series pay the highest wages but everyone on a television set got their start in independent films. Therefore, ***we recommend that a portion of the new higher cap be dedicated to smaller productions with budgets less than a specified amount that could be determined by the New Jersey film commission***.

Policy Review

The NJIT-NJEDA Program Evaluation Services Plan of Action (Appendix A) identified a Policy Review as the first milestone. This review is also noted as the second point under the scope of work in the Memorandum of Understanding (MOU) which is attached as appendix B. We have reviewed documents and conducted interviews pertaining to both the film and digital media tax credit programs in order to achieve this milestone.

A policy review to determine the intended impacts of the programs at inception is crucial in evaluating the success or failure of the programs today. The policy review helps to identify the criteria that will be used in later evaluation of the program implementation and process and for modeling and analysis of the costs and benefits. Taking into account current policy and fiscal concerns, we have identified criteria that will help us to evaluate these programs.

The New Jersey Film Tax Credit Program and the Edison Innovation Digital Media Tax Credit Program (FILM Programs) are relatively new programs, so many of the original participants are still active and most documents are available in digital form. We begin with the authorizing laws.

Neither the law authorizing the Film and Digital Media tax credit program, P.L. 2005, c. 345 (54:10A-5.39 et al.), nor the rules, NJ Administrative Code 18:7-3B.1 clearly articulate the intended impacts of the programs at inception or as amended over time. But, the more recent Digital Media Credit (2007) provides more explicit requirements for the companies that claim the tax credits.

While the legal definition of a qualifying film is stated plainly, the definition of digital media is more ambiguous. This is not surprising given the recent and rapidly evolving development of the digital media content business. Therefore, the law places significant limitations on what companies can claim the digital media credit and targets companies that are spending at least $2,000,000 in New Jersey. It further requires hiring of new full time employees in New Jersey and mandates that the rules should consider the number and quality of the new positions in determining the availability of the tax credits. Indeed the rules specify that at least 50% of the "digital media content production expense shall consist of wages and salaries for full-time digital media employees in New Jersey. The taxpayer shall create and maintain a minimum of 10 new full-time digital media jobs with an annual salary of at least $65,000. The taxpayer shall utilize the remainder of the expense requirement to create full-time digital media jobs with an annual salary of at least $36,000." Jobs that are included under the BEIP and BRRAG grants, other business programs administered by NJEDA, are excluded and the rules describe provisions to recapture some or all of the tax credits if the jobs are not maintained for at least three years.

In our meeting with Steven Gorelick (11 August 2010), Executive Director of the New Jersey Motion Picture & Television Commission, he provided data on the number of films shot in New Jersey and the total amount of NJ film expenses for the last several years. He explained that the increase in these metrics since the inception of the film tax credit is evidence of the success of the FILM programs in attracting film business to New Jersey. While he agreed that measurements of investment in permanent facilities and the creation of new high wage jobs were also valid objectives, he had no data on them. But he expressed a reasonable belief that they would be achieved if New Jersey could maintain a constant flow of transient productions. He noted that the relatively small size of the New Jersey film tax credit annual cap limited the interest in production of big budget films but that smaller independent films were attracted to New Jersey because of the film production tax credit.

When I asked Steven Gorelick to recall the inception of the law under the administration of Governor McGreevey, he spoke about his conversations with then NJ Treasurer, John McCormac. Steve expressed an interest in increasing the production of smaller budget independent films in NJ and described the effects of Canadian and other US State credits on NJ as being very damaging. He said that he feels that Treasurer McCormac was most motivated by the risk that NJ would lose an entire industry if nothing more was done.

In our later meeting with NJ State Senator Paul Sarlo (17 August 2010), we spoke again about the intent of the FILM programs. While he began his discussion by citing the importance of economic growth and the necessity of incentives to compete with other states, he quickly came to his basic concern, “pure jobs”. He spoke about the decline of manufacturing in NJ and the need to attract a thriving industry to create jobs with good pay and benefits. He spoke about how the film industry jobs created benefits for the surrounding community, including dry cleaners, hotels, caterers, local hardware stores and more. He mentioned a single scene from Law and Order – SVU that was shot in his community that took two days and created “tons of local business”. When I asked about the intent behind the digital media content tax credit, he re-emphasized the importance of larger companies locating new jobs for this growing dynamic segment in New Jersey.

Senator Sarlo was also clear that he liked tax credits better than grants. He said that companies will work to choose the most profitable projects and agreed that the state was not necessarily very good at choosing which projects should receive investments. He concluded that New Jersey was a natural home for a vibrant film and digital media industry and “Tax credits are incentives, not government giveaways”.

In a subsequent meeting with NJ State Assemblyman and Deputy Speaker Upendra Chivukula (21 October 2010), we spoke about the intent of the FILM programs. He supports the FILM programs and especially the digital media credits which he recognizes as an opportunity to strengthen our research base, including our public research universities, and to drive new public/private partnerships. As his motivation, he discussed the challenge of creating new high paying jobs to take up the slack from the decline in manufacturing in New Jersey. In recognizing these investment possibilities, he also recognized the tradeoff between tax revenue and new high quality jobs that is at the heart of this legislation.

From our reading of the law and rule governing the FILM programs and our understanding from the interviews of a NJ Senator, Assemblyman, and Film Commission Executive Director, we understand that there are several relevant metrics for success, but the most important bottom line for all of them is to develop new high wage jobs in New Jersey in a cost effective manner.

In the next section, we will undertake to conduct an evaluation of the process and implementation of the tax credit programs. And in our subsequent analysis, we will try to develop data to understand how well the goal of cost effective job creation has been met by the FILM programs.

SUMMARY

The review of documents and conduct of interviews has led to our clear understanding that the creation of highly compensated, high quality jobs for New Jersey residents is the core goal of both of the FILM tax credit programs. The next section will evaluate how well the process and implementation of the tax credit programs aligns with this goal. Recommendations to improve the process and implementation will be provided and program enhancements incorporating the “best practices” to encourage capital investments in permanent infrastructure and other program improvements will be explored. While perfect metrics for evaluation may not exist, we will try to create models that translate related objectives into the goal of high quality jobs for New Jersey residents.

Implementation / Process Evaluation

The NJIT-NJEDA Program Evaluation Services - Plan of Action identified an Implementation / Process Evaluation as the second milestone. This evaluation is also noted as the second deliverable in the NJIT-NJEDA Memorandum of Understanding. We have reviewed documents, held meetings and conducted interviews pertaining to both the Film and Digital Media tax credit programs in order to achieve this milestone.

Our interviews are with program applicants, participants, administrators and legislative sponsors, so they are by nature positive with respect to the program. But since our goal in this section is to evaluate the implementation of the program, these are the obvious targets of our investigation.

Implementation or Process Evaluation

An evaluation of the implementation of a program, or process evaluation is designed to aid in understanding how a program's plans and objectives are put into action. An important goal is to identify problems and obstacles in order to improve program performance. Information gained from the previous Policy Review will be used to develop metrics to evaluate program performance. So another important goal is to prepare and lay the groundwork for a more quantitative impact assessment and cost / benefit evaluation. Finally, we expect to provide some recommendations to improve the efficiency of the programs, improve program alignment with policy intentions, and evaluate these programs in the context of programs in other states to help determine "best practices" for these types of programs.

An implementation or process evaluation adds a qualitative dimension to the Metrics, Modeling and Analytics that will be part of the next section and milestone under the MOU. A process evaluation goes beyond the metrics to provide a richer analysis of the more quantitatively elusive aspects of the program. Reviews of the laws, statutory rules, procedural documentation and steps, and interviews and meetings with NJEDA personnel, program applicants and beneficiaries, and other important stakeholders provide the data for our analysis. Understanding, in detail, how the program operates, will help us to develop the analytic models. In addition, the qualitative data we develop can help to fill in the blanks where the quantitative metrics are not available.

Process Evaluation Plan

We will break the program implementation or process evaluation into components beginning with program participant or potential participant evaluation. As a first step, we will attempt to identify the target population for each of these programs and assess their program understanding. Are the prospective applicants and beneficiaries aware of the relevant tax credit programs? Do they understand the requirements for eligibility? Do they understand the objectives and usefulness of these programs?

Since some of the most important information we solicit will be potentially critical of the current program, process or administration, we felt that anonymous responses would protect members of the public who might seek to submit future applications to this program or to related programs. Therefore, attribution of comments from the interviews will be identified as from “independent producers” or “studio developers” in this review. Only public figures or individuals who offered use of their names are specifically identified.

Next we will review the application process for each of these programs. We will review requirements and documentation and follow the process from initial marketing and introduction to final awards of tax benefits and monetary subsidies. We will evaluate the assistance and challenges faced by applicants and try to understand why some applicants fail to become beneficiaries. Transparency and fairness will be evaluated through all of the phases including the appeals process. We will consider the problems of asymmetric information and the related problems of adverse selection for these application processes.

We will conclude by identifying obstacles and barriers faced by the applicants and beneficiaries to these tax credit programs. We will provide recommendations to improve efficiency and alignment with policy intentions for these programs and will discuss some “best practice” opportunities to redesign programs to improve performance.

Target Population Awareness and Eligibility Understanding

Under the law, P.L. 2005, c. 345(54:10A-5.39 et al.), applicants for the Edison Innovation Digital Media Tax Credit Program and the New Jersey Film Tax Credit Program must apply to the Director of the Division of Taxation in the Department of the Treasury and to the New Jersey Economic Development Authority to be allowed a 20 percent credit against their taxes for qualified expenses. The explicit role of the New Jersey Motion Picture and Television Commission is as a consultant in the development of rules necessary to implement the act. But as Steven Gorelick, Executive Director of the New Jersey Motion Picture and Television Commission told me at our first meeting (9 July 2010) “much is done in rule making”.

The law defines a film as “a feature film, a television series or a television show of 15 minutes or more in length, intended for a national audience.” And a qualified film production expense “means an expense incurred in New Jersey for the production of a film”. Eligibility requirements for this tax credit are explicitly defined in the New Jersey Administrative Code 18:7-3:B.3 as taxpayers who incur qualified film production expenses provided that at least 60% of the total production expenses exclusive of post production costs will be incurred for services performed and goods used or consumed in New Jersey, AND principal photography begins within 150 days after the approval of the application for the credit.

Based on our interviews with several independent producers, we have determined that as a practical matter, film producers are very familiar with the value of film tax credits which are offered in many U.S. states and in some foreign countries. They will certainly seek to contact the film commission of any state that they are considering filming in and as John Ford, President of IATSE Local 52 (International Alliance of Theatrical and Stage Employees) told us (11 August 2010) “decisions on filming location are made in the finance departments of the major producers.” Any film producer who googles “NJ Film”, “NJ Film Commission”, “NJ Film Tax Credits”, “NJ Film Tax Incentives” or anything similar will find the website for the New Jersey Motion Picture and Television Commission, njfilm.org, at the top of their search.

During our conversation about the process for applying for the credits, Steven Gorelick of the New Jersey Motion Picture and Television Commission explained (11 August 2010) that he “was the first, and often only, New Jersey contact for film producers” and that the commission website has the relevant laws, rules and application forms so that production companies can easily apply for the credits. He encourages them to apply as quickly as they can to attain the earliest possible position in the queue since the tax credits are awarded on a first come first served basis. Therefore, we can conclude that the target population for the film credits self identifies and is highly aware of the credit program.

The digital media credit has a somewhat different character. As a newer and more innovative program, the digital media credit has not been as widely utilized as the film tax credit program and has received only one successful application to date that utilized the full 5 million dollar annual authorization. Under the law, P.L. 2005, c. 345(54:10A-5.39 et al.) as amended under P.L. 2007 c. 257, digital media content is defined as “any data or information that is produced …or reformatted in digital form” but “does not mean content offerings generated by the end user … content comprised primarily of local news, events, weather or local market reports; public service content; electronic commerce platforms…obscene material … websites or content that are produced or maintained primarily for private, industrial, corporate or institutional purposes; or digital media content acquired or licensed by the taxpayer”. And expenses that qualify for the 20 percent tax credit include broadly defined production expenses but exclude marketing, production or advertising costs not directly related to the production.

While the definition of digital media is quite broad, the eligibility requirements of the law are more stringent. The typical small business digital media content producer might be thought of as two guys in a garage, but the law is clearly focused on larger businesses. This intent was clearly expressed by one of the principal authors of this law, NJ State Senator Paul Sarlo during our interview (17 August 2010) where he expressed his intent to attract large providers like CNBC, Fox News among others. He “wanted companies that would build and utilize infrastructure" in "this new market". The law and administrative rules require an eligible taxpayer to spend at least $2,000,000 per year on digital media content production expenses with at least 50% on wages in New Jersey and to "create and maintain a minimum of 10 new full-time digital media jobs with an annual salary of at least $65,000 and for the remainder to have a salary of at least $36,000 with provision to recapture all or a portion of the tax credits in the event the taxpayer fails to maintain the new full-time positions.

As a result, the target population for the digital media tax credit program is relatively small relative to the pool of all companies that produce digital media content. Also, this is a new and innovative program that only New Jersey offers to attract investment and infrastructure in such a broad definition of digital media production, so companies that are potentially eligible will need to learn about the program without reference to programs in other states. If any digital media content producer were to google "NJ Digital Media", "NJ Digital Media Commission", "NJ Digital Media Tax Credits", "NJ Digital Media Tax Incentives" or anything similar they will find the websites for the New Jersey Economic Development Authority and New Jersey Motion Picture and Television Commission with information about the program among the first few links so the information is available for those who look for it. But neither of the two people most involved with marketing the NJ digital media tax credit program, Steven Gorelick of the New Jersey Motion Picture and Television Commission or Kathleen Coviello (19 August 2010), Director – Technology and Life Sciences, Edison Innovation Fund, New Jersey Economic Development Authority have indicated that they receive many inquiries.

In interviews with participants of the digital media market and based on conversations with a beneficiary, it seems that other states define digital media more narrowly and bring their programs under the umbrella of their film commissions. Programs that have sprung up in Georgia, Florida and Connecticut have focused on digital media content creation for video games and digital special effects for films and television. Also, clear assignment of marketing responsibility has allowed the film commission offices of those states to take advantage of existing relationships to attempt to expand job creation and development of these new and growing areas. Perhaps a modified and more narrowly focused digital media credit in New Jersey could gain more traction with the relevant marketplace.

Understanding of Objectives and Usefulness

In a series of interviews with independent producers, studio developers, representatives of major studios and other stakeholders in the film and digital media industries, we discussed the objectives and usefulness of these tax credit programs. Program applicants, potential applicants, and beneficiaries have all described the reliance that the film industry places on tax credits. They are aware of the state programs and base their location choices on the availability of credits. As one participant told us," We come with nothing but money, and then we spend it". Although significant sums are paid for the script rights and to the top talent including the stars and director, for a typical independent film, 65-75 percent is spent "below the line", for crews, locations, carpenters, electricians etc, most of which is spent locally.

For a prototypical project, a producer will receive a script that has some specific requirements for types of locations. "Talent issues" may determine where they will go for filming, but while the big names still have influence, the talent holds less sway than they did 10-20 years ago. Another important consideration that benefits New Jersey is the requirement for an experienced and deep crew base with available extras. A "greenlit" project will have a pre-defined and limited budget, so a location choice in New Jersey might reduce the production risk, though the profit of many productions may depend on the existence of state tax credit programs that reduce net operating costs. Cost sensitive producers make the final call on location choice.

For a TV series, they will shoot 22 episodes and may have 4 locations and require 4 stage sets. Initially location scouts begin to figure out where there may be suitable existing or convertible facilities. For a television series like Mercy which was produced by NBC but was not picked up for a second season, the producers spent $5 million to create the sets in a converted warehouse and employed 250 people in addition to numerous vendor services they used. According to one participant, while Mercy did not film a second season, the space "likely would have been repurposed" for a new television series in 2010 if New Jersey had not suspended the tax credit programs.

With the dependence on facilities and crews at the forefront of the location choice decision, New Jersey benefits from its existing infrastructure, but growth also depends on the development of new infrastructure. In conversations with studio developers, the film credit is a crucial part of the choice on where to make fixed investments. Reportedly, development of a new studio facility in New Jersey was put on hold due to the one year moratorium of the film tax credit. Another studio developer says that he is continuing to promote the credit and assumes it will come back in the future because "producers count on the tax credit to produce profits".

Application Process

As discussed in the section on awareness, it is not difficult to find the tax credit application documents for the film or digital media programs. They can easily be found on line at the film commission website or the NJEDA website. The film tax credit application is only 5 pages, though detailed attachments must also be submitted. The digital media tax credit application is only 5 pages and prominently displays the most salient limitations on eligibility. On the NJEDA website, there are strong recommendations to work with a Finance Officer with clear instructions on how to find the relevant assistance. On the film commission website, there is clear information on how to contact the relevant officials who can assist potential applicants. Applications are to be sent to the NJEDA in triplicate.

In the case of the film tax credit program this system seems to work quite well and staff is able to guide most applicants to help them to complete successful applications. The performance of the digital media tax credit is more ambiguous due to the very limited number of applications. Bruce Deichl, President of Tax Credits LLC, one of the most active brokers of tax credits, has been critical of the digital media tax credit law that allows for recapture of the credit if employment levels are not maintained for some years after the initial issuance of the credits. As he points out, there “should be no recapture from good faith buyers” or else it will be difficult to sell and monetize the credits.

In an email subsequent to our meeting on 9 July 2010, John Rosenfeld, Director – Program Services of the NJEDA, provided two documents, “Processing Steps of Typical Film Tax Credit Application” and “Processing Steps of Typical Digital Media Tax Credit Application” which are very similar. When applications are received, a “red rope” file is created and basic information is entered into the relevant log files. Applications are then reviewed by a Finance Officer who double checks the log entries and reviews the log files for completeness. If there are any missing items, then the receipt date of the last received missing item becomes the new application receipt date which is important since these are first-come first-served application queues. The two extra application packages are sent to the film commission and the Division of Taxation. Once a year, a project summary is prepared for each logged, complete application to the extent that there would be enough available allocated funds/credits from the current year and /or future years and a recommendation is received from the film commission. Project summaries are added to the Board Agenda for agenda review and the Board approval process. After EDA Board approval, the entire file is transferred to the Closing Services division.

Once the NJEDA has made an initial determination in favor of an applicant, the proposed projects move toward completion. When the film project is completed or the digital media fiscal year ends, the applicant must have the expenditures audited. This audit by a certified public accountant is mandated by the New Jersey Administrative Code 18:7-3:B.5 and verifies that the expenses claimed by the applicant qualify for the tax credit and were incurred in New Jersey. Final approval by Taxation which may conduct its own review and audit is also required. Based on a telephone interview (13 August 2010) and subsequent meeting (17 August 2010) with John Genz, CPA and Partner at EisnerAmper, the accountants act to “police” the reporting because the State of New Jersey “must protect itself”. Overall most market participants recognized the need to make sure the tax credits were fairly applied and agreed that the use of an audit was significantly preferable to a risk that the credits would be reversed or “recaptured” based on some future findings.

As John Genz of EisnerAmper explains it, the process is quite straightforward if the applicant has hired the "right accountant, attorney and broker" if they plan to monetize the credit by selling it. Unfortunately, the film producers sometimes vary in experience and if they are "two guys and a dream" who "hire someone's brother-in-law" to handle the accounting, they can easily save $4,000 and lose $100,000 in credits. If they utilize an experienced production accountant, then the "bible" of expenses produced will be easy to audit. Another rookie mistake is that since expenses often go over budget, it may be necessary to overestimate expenses in the initial application in order to be able to collect the full amount of the credit available to a film maker. Another suggestion from John Genz was to establish "Agreed Upon Procedures" that were acceptable to NJ Division of Taxation and the applicants that could help to define and streamline the audit process. Technically, "Agreed Upon Procedures" are similar to an audit, but do not require an opinion letter which can reduce the cost. If New Jersey were to adopt standardized "Agreed Upon Procedures" then there might be greater transparency on the requirements that will be faced by producers claiming the credits.

In our meeting (17 August 2010) and subsequent telephone interview (7 September 2010) with Brian O'Leary, Senior Vice President and Tax Counsel for NBC/Universal, one of the most active beneficiaries of the FILM tax credits, he verified the importance of the tax credit programs in the calculation of the cost of production and choice of locations for shooting. He believes the current application procedure is fair and reasonable and is not too onerous, though it may be more difficult for independent film makers. The waiting time for the actual credits has come down over time and is "reasonable as long as the receivable is on the books". He described the digital media program as a "startup" and said there had been problems with unclear procedures.

Interviews with independent producers who have worked in New Jersey in the past indicated that audit of expenses was sometimes "problematic". Some complained that it was difficult to work when the "rules kept changing" and others were concerned about the "fairness" of the rules. The expense of the audit was also an issue for some producers. As a generalization, the larger and more experienced producers had few problems with the mechanics of the audit process. One producer who complained about the fairness and consistency of the rules noted that film stock that was delivered and picked up in New Jersey qualified for the credit while film stock that was delivered to NY and picked up by truck did not count as a qualified expense. Unfortunately, this is related to the legal requirement for qualified expenses to be incurred in New Jersey and seems to represent a lack of tax sophistication on the part of this producer. Film producers were generally happy with their interface with New Jersey through the Film Commission and often had no other relationship with either the NJEDA or Taxation. Most film producers did not deal directly with the documentation for transferring their tax credits and relied on a broker to handle this paperwork.

Final approval of the credits is done by authorization by the board of the New Jersey Economic Development Authority. The approval is made based on recommendations from EDA staff members who have worked with the Film Commission and Taxation to determine the maximum amount of the tax credits available to each qualified production. At a meeting that is typically during the first quarter of the calendar year, the EDA board receives a memo from Caren S. Franzini, Chief Executive Officer of the New Jersey Economic Development Authority, with the recommendations. This seems like a straight forward process and we have seen no evidence of process issues or barriers at this stage.

Conclusions and "Best Practices"

The $10 million cap on the annual film tax credit limits demand for the production of large budget films and reduces the interest in production of high budget television series as well. Only one high budget TV series, "Law & Order: Special Victims Unit" ("SVU") has been produced in New Jersey in recent years. As one independent producer noted, even one TV series with a large budget of $50+ million "sucks all of the air out of the tax credit program". As a practical matter, approved credits in excess of the annual cap are allocated to future years, but for a program where the legislation "sunsets" in 2015, this can have the unintended consequence that the program shuts down unexpectedly early.

Although there is no legal minimum for the amount of credits that may be claimed by a beneficiary under the film tax credit, the practical costs of claiming the credit limit the applicants to producers who have expenses in excess of $100,000. The digital media credit has a floor, but the one applicant who applied in 2009 exceeded both the floor and the annual cap of $5 million, so some credits are already awarded for 2010. In the case of this large digital media beneficiary, the possible "recapture" of the credits could either be indemnified or they could be used by other parts of the company and not sold. For many smaller digital media producers, neither of these options would be viable.

Though the next section on Metrics, Modeling and Analytics will examine this assumption quantitatively, if one assumes that more film production in New Jersey is a good thing, then an increase in the cap would increase employment and economic development in New Jersey. In the same year where New Jersey established a moratorium for film tax credits, New York increased their film tax credit programs as an economic development program. Normally, it is difficult to estimate the elasticity of film production relative to the level of tax credits and analysts are required to make significant assumptions in their calculations, but New Jersey has conducted an interesting experiment for fiscal 2011 by establishing a moratorium. Over time we will have a better idea of how sensitive film production actually is relative to the availability of tax credits.

Although one can debate which types of productions are most beneficial for New Jersey, the general consensus is that television series represent a more predictable income stream than independent films and are therefore more desirable for New Jersey. Various producers confirmed that high budget television series require significant investments in fixed infrastructure. Once built, the fixed infrastructure helps to lower the costs of future productions and increases the attractiveness of New Jersey as a filming location.

One innovative strategy to encourage production of television series that has been used by Florida in their film and television tax credit program has been to allow series that are filming in their second and subsequent years to automatically jump to the head of the queue. Since the queue is normally first come first served, this could have the result of forcing independent films out of New Jersey. Therefore, since the low cap only allows for one $50+ million production like SVU, the cap would need to be raised in order to accommodate greater television production in New Jersey.

If there were to be a focus on larger television series with a larger annual cap on available NJ film tax credits, then there might be some fraction of the annual cap for film tax credits that would be in a protected tier for independent productions with budgets of less than some specified amount. The rationale for such a protected tier is to foster the continued development of the local labor force. Big budget films and television pay the highest wages, but also require the most experienced technicians, while lower budget independent producers offer greater career opportunities at lower wage levels. As one producer explained it, “Every technician who works on a major television series got their start in independent films”.

Other states have established requirements for hiring locally if producers want to claim the highest levels of film tax credits. Both Michigan with a 42 % maximum credit and Tennessee with a 32% maximum credit have such requirements and producers seem to be able to either take advantage or appropriately discount the credits to arrive at net benefits available from each state program. Other states have additional requirements for claiming tax credits, but producers generally seem to appreciate the simple structure of the New Jersey program and feel that the seemingly lower 20% credit is adequate given the other advantages that New Jersey offers so no increase or restructuring of the 20% credit is recommended.

Another practice that has been utilized by other states could help improve the financial efficiency of the New Jersey film tax credit program. In other states, the state has acted as a “backstop” buyer of the credits so that if the market price is not high enough, then the state will purchase the credits back directly. One criticism of the New Jersey program is that the state gives out $1 in credits, but the companies that receive the benefits only get $.85 to $.91 in benefits. If the state were to offer to repurchase transferable tax credits for $.90 directly, then it might simplify the process for beneficiaries and make the program more efficient at the same time. In this case, the state would be then giving out $.90 per dollar of tax credits that would go directly to the beneficiary.

Metrics, Modeling and Analytics

The NJIT-NJEDA Program Evaluation Services – Plan of Action identified a report on Metrics, Modeling and Analytics as the third milestone. This report is also noted as the third deliverable in the NJIT-NJEDA Memorandum of Understanding of July 21, 2010. We have reviewed the academic literature, sample reports from other jurisdictions, and held meetings in developing the plan for this report.

Metrics, Modeling and Analytics
This section is designed to provide a quantitative assessment of the performance of the NJEDA FILM tax credit programs. Unfortunately, with such limited history and data for the digital media tax credit program, we are unable to provide meaningful quantitative analysis, so the remaining analysis of this section will be focused on the film tax credit program. We will utilize a traditional cost versus benefit analysis, but the numbers at the end will only be meaningful if the evaluation uses well chosen and good quality data (Metrics), a well designed process for evaluating the data (Modeling), and reasonable assumptions (Analytics). Therefore, we will discuss each of these sections in detail before trying to arrive at a quantitative assessment.

Metrics
In our earliest meeting (10 July 2010) with Steven Gorelick, Executive Director, New Jersey Motion Picture & Television Commission, he provided us with a comprehensive 2008 Annual Report from the commission as well as other detailed data about the beneficiaries of the film tax credit program. In addition to specific program data, Steve was able to provide us with historical data on total film production in New Jersey. Unfortunately, nearly all of this data was in the form of dollars spent and date of expenditure, so none of it matched the key objective identified in the Policy Review which identified cost effective creation of high wage jobs as the goal of the statute.

When we consider the impact of the film tax credit program in New Jersey, we will need to determine the relationship between dollars spent and employment of film industry workers. We will also need to consider the indirect and induced effects on employment levels, wage levels, and gross regional output of the film industry expenditures in New Jersey. Finally, it will be crucial to estimate the tax revenues generated by this activity in order to compare with the outlay or revenue foregone by New Jersey as part of the 20% tax credit program.

The New Jersey film tax credit program began to issue credits in 2006. We have data on program projects from that date to 2009, though the most recent figures are still subject to revision. The historical reporting of total film spending in New Jersey goes back to 1978, but is not very reliable until 2006. Table 1 summarizes the most salient facts.

Table 1

Year	# Total Projects	# Creditable Projects	Total FILM Spend	Creditable Spend
1985	276	N.A.	$16,800,000	N.A.
1990	421	N.A.	$26,200,000	N.A.
1995	518	N.A.	$40,900,000	N.A.
2000	664	N.A.	$69,700,000	N.A.
2005	937	N.A.	$85,500,000	N.A.
2006	941	5	$92,000,000	$46,484,448
2007	972	14	$121,000,000	$68,325,162
2008	834	11	$114,000,000	$68,490,439
2009	915	8	$132,000,000	$71,629,333

It is theoretically possible to collect payroll data from each creditable production. This would allow for an explicit calculation of number of employees and also average wages, but since this has not been the practice of either the film commission or NJEDA, this data was not incorporated into this report. It would be a valuable check of later modeling for this data to be collected in the future. To incorporate this practice in the future, it would be necessary for the relevant New Jersey Administrative Code be amended to require film producers to submit this information as part of their final audit data.

In addition, we examined some “typical” independent film budgets to understand the components of how the money is spent. The budget is normally broken down into two sections known as “above the line” and “below the line”. The costs of script acquisition and development, writers, director and main talent are all above the line. The costs of sets, lighting, crews, film, equipment and operational expenses are below the line. Therefore, the prime source of local economic development comes from the below the line budget. For a typical independent film, 65-75% of expenses are below the line, while this may be lower for a “big budget” film where the top talent may take a larger share of the total budget.

Tourism is probably the most important benefit we are not going to quantify. There is a generally acknowledged positive relationship between the film/television industry and tourism. The HOLLYWOOD sign is a famous landmark in Los Angeles and “Good Morning America” typically shows flocks of tourists peering through the windows in New York City. Even more remote locations may become prominent tourist destinations. Devil’s Tower National Monument in Wyoming was established as an important tourist destination after being featured in Close Encounters of the Third Kind (1980). There have been academic studies that quantify the benefits of film/television on tourism, but that sort of analysis is beyond the scope of this report. Suffice to consider the tourism benefit as an unquantified extra in this study.

Modeling

Several other states have recently evaluated their film tax credit programs and we have been able to review several of their reports. Ernst and Young created a report, "Estimated Impacts of the New York State Film Credit" (February 2009) and ERA/AECOM created reports for Louisiana (February 2009) and Pennsylvania (May 2009) that have provided useful input into our development of a modeling strategy for New Jersey. Each of these state analyses has faced the common problem of converting film spending into direct and total effects on employment and other economic variables.

The basic theoretical structure used to relate different sectors of the economy is a macroeconomic model. Wassily Leontief developed a simple and robust linear model that could evaluate different market sectors that he first explained in the April 1965 issue of Scientific American. Subsequently, the US Department of Agriculture and the Minnesota IMPLAN group developed an input-output model based on Leontief's work that they could use to evaluate the economic impacts of forestry strategies. We have adopted this IMPLAN model as our basic macroeconomic tool to relate the effects of film and television industry spending on other sectors of the economy. We focus exclusively on the New Jersey subsector model.

An input-output model is a linear approximation of the complex relationships between different parts of the economy. Typically the relationships are non-linear, meaning that there are feedback mechanisms that cause effects to continue to increase or decrease over time. For example, the introduction of a new school will add construction jobs immediately, but will eventually create an educated workforce that can do many other more sophisticated types of work. We are only going to consider the "first order" or most immediate linear effects. This tends to understate the long run impact of an action, so our results will tend to be conservative as a result.

When money is spent on a film production, there is some immediate hiring of workers and expenses for production. These effects are known as the direct effects. When some of the money is spent on other goods and services, these expenses create what are known as indirect effects. Money spent on catering indirectly causes the caterer to hire more staff. Finally, when the employees go home and buy presents for their children this also causes more hiring for the toy manufacturers and is known as an induced effect. We will summarize our results by breaking the analysis down into the direct and total effects, where the totals include the direct, indirect and induced effects.

Analytics

We can estimate the total Gross Regional Product of the New Jersey (Table 2) economy by using US government statistics and can also calculate the total number of workers and their wages. We can further break out the employment, total output, wages and other income for the Motion Picture and Television Production industry (IMPLAN sector code 346) in Table 3.

Table 2

Year	2008
Gross Regional Product	$498,998,397,040
# of Employees	4,981,596
Average Wage	$88,749.81

Table 3

Year	2008
Motion Picture and Television Production Industry Total Output	$1,316,449,536
# of Employees	8665
Total Wages	$353,060,960
Other Income (i.e. rents, profits etc)	$207,559,737
Average Wage (NJ residents)	$40,746

And we can therefore see that the film and television industry is a small but significant segment of the New Jersey Economy, .26% of output, .17% of employees and that the $40,746 average wage of New Jersey film and television workers is significantly below the NJ average wage of $88,750. It appears that the highest wage earners from the film industry, the main talent, writers, directors and producers, continue to live outside of New Jersey.

If we consider that the total film industry spending in New Jersey is dependent on the film tax credit program, then we can estimate the direct and total impact of that spending on the employment, labor income, and total output in Table 4. This assumption is the same one that was made in the analysis done for the other states and we will consider it further later.

Table 4
Based on the 2009 NJ Total Film Spend of $132,000,000

	Employees	Labor Income	Output
Direct	869	$36,167,240	$132,000,000
Total	1682	$80,303,683	$259,028,824

So the number of employees (1.93x) and total output (1.96x) were nearly doubled by the indirect and induced effects while the labor income was more than doubled (2.22x). This implies that the average wages of the contractors and induced hires was greater than the wages for the direct film employees. When we spoke to John Ford, IATSE Local 52 President, he confirmed that many of the higher wage employees were NY based and that many independent films pay on a lower wage scale. Further, these multipliers are similar to those estimated for

NY, but are slightly lower which is probably a reflection of the lower level of post production work done in New Jersey relative to New York. Based on these numbers, we can conclude that the film spending has a significant effect on increasing employment in New Jersey, but not for the highest wage jobs.

In order to evaluate the costs and benefits, we need to identify them. While the policy review identified the creation of high quality and high wage jobs as the most important objective, it also specified that this should be done in a cost effective manner. We are assuming that the film tax credit program is the driver of this job creation, so it is simple to assume the annual cost of the 20% tax credit program is the full $10,000,000 available each year, since $10,000,000 is the statutory cap on annual expenditures. This $10,000,000 is lost by New Jersey as foregone tax collections and will be evaluated by comparing this to the benefit of other tax collections generated by the additional economic activity incentivized by the credit.

The actual cost of this program to the State of New Jersey is likely to be lower than the $10,000,000 estimated above. First, there is the simple issue of when the cash flows occur. Since the revenues generated by a film occur during the year of filming, the taxes thereby generated are collected within the following year. The film producer then must finalize their film, including post production, then close their books and have them audited, and then apply for the issuance of the tax credits. Once issued, most independent producers will offer the credits for sale and the ultimate purchaser may then use them to reduce their tax liabilities in New Jersey. Since this process typically takes at least two years, New Jersey has the benefit of the revenue for at least two years before facing the cost of the foregone tax collections. The time value of the money collected upfront must represent at least two years of interest or the cost of the foregone taxes must be discounted by at least two years at the rate New Jersey would otherwise have borrowed at. So the cost is thereby reduced by 5-10% depending on the interest environment at the time.

Another factor that may reduce the actual cost of this program is that approved companies may never complete their final application to receive their transferable tax credit certificates. There may be a number of reasons that films that received preliminary approval do not finalize their applications. They may discover that they needed to spend money on some other locations and therefore violated the 60 percent New Jersey spend rule. Or they may run out of financing and never complete the post production for their film and therefore not have a final version which is required as part of the application. In some cases, it is possible that a producer may have overestimated their actual expenses and therefore never collect the amount approved in their initial application. It appears that 48 applicants have received preliminary approval for credits with a maximum value of $42.2 million. In data from early 2010, of the 48 applicants with preliminary approval, only 18 have certified their expenses occurred within New Jersey and been issued tax certificates totaling $22.2 million. Unfortunately since there is no deadline for finalizing applications, there is no way to be sure that late applications will not be filed at some point in the future. In any case though, even a late application reduces the cost to New Jersey since the cash outflow will occur even more than two years after the benefits are accrued.

If we consider the very simple economic model where all film monies are spent on wages, then we can assume that New Jersey collects the average income tax rate of 5% back from the employees. If we further note that the total wages are approximately double the direct wages, then the indirect and induced wages should generate about another 5%. If we then also note that the creditable film expenses are approximately half of the total film expenses (from Table 1) then we can see that we should expect to get back in personal income taxes the same 20% that was spent by the state as a credit to the film production company. IMPLAN also estimates these figures directly and the results are in Table 5.

Table 5
Based on 2009 Total Film Spending of $132,000,000

NJ State and Local Tax Collections	$10,093,179
Federal Tax Collections	$20,157,219

So New Jersey has an approximately zero net tax transfer to run the film tax credit program but creates 1682 new jobs with average wages of $47,734. If the estimated Federal tax collection of over $20 million is credited to this program, then the financial benefits are approximately 3 to 1, though it may be difficult for New Jersey to share in those revenues.

Based on these figures, this seems like a sensible economic development activity, especially since we have probably overestimated the cost and underestimated the positive effects. By using the linear input-output model we fail to account for the non-linear feedback of developing an industrial infrastructure. For New Jersey, if a television company builds a new studio to house a new show that they film, then that capital investment makes it cheaper for them to continue producing the show in subsequent years. Even if the show were to be cancelled, it is then cheaper for another show to take over the space to film in New Jersey. Also, we have given no positive weight to the likely increase in tourism revenue that may be attributable to NJ based films or television shows.

Analytics Critical Review

We have made the crucial assumption that all New Jersey film and television production was attributable to the film tax credit program. We know from Table 1 that there was a film industry in New Jersey long before the credit was legislated. A reasonable critic of the film tax credit program might assert that the only production that would diminish in New Jersey without any tax credits would be the “credit eligible” films and television shows and that the remainder would be unaffected by reduction or elimination of the film tax credit program. We can revise our input to the credit eligible expenses only and recalculate Tables 4 & 5 to produce new Tables 6 & 7 as below.

Table 6
Based on the 2009 NJ Credit Eligible Film Spend of $71,629,336

	Employees	Labor Income	Output
Direct	472	$19,626,024	$71,629,336
Total	913	$43,576,508	$140,560,859

So with slightly more than half of the spending level, we end with slightly more than half of the estimated effects. Since this is a linear model everything is proportional and the multipliers are the same. Based on these numbers, we can still conclude that the film spending has a significant effect on increasing employment in New Jersey.

When we estimate the tax collections, then there will be the same proportional reduction. IMPLAN also estimates these figures directly and the results are in Table 7.

Table 7
Based on 2009 NJ Credit Eligible Film Spend of $71,629,336

NJ State and Local Tax Collections	$5,477,026
Federal Tax Collections	$10,938,240

So under these much more conservative assumptions, New Jersey has an approximately $4.5 million net tax transfer to run the FILM tax credit program but creates 913 new jobs with average wages of $47,734. If the estimated Federal tax collection of over $10 million is credited to this program, then the financial benefits are approximately 1.65 to 1. This implies a New Jersey expense of $4,954, or slightly more than 10% of wages, for each job created or saved.

Typically, economists have great difficulty estimating the true elasticity of changes in New Jersey film spending in response to a proposed change in the tax credit, but this year, New Jersey conducted an experiment that allows for much more direct estimation. Proponents of the fiscal 2011 FILM tax credit one year moratorium (July 1, 2010 – June 30, 2011) probably believed that there would be only a marginal reduction in the production of new films in New Jersey, because many films and television shows that were “in production” or already underway would continue. Since we are now 75% done with 2010 we can rely on actual observations of the effects of the one year moratorium for 2011.

If we disregard the spending on television shows in the first quarter, which is a clear carryover from shooting that started in 2009, then the 2010 film spend that is currently estimated by Steven Gorelick will be only about $20MM or an 85% reduction from the previous year. This dramatic reduction demonstrates the extreme elasticity which film and television production now exhibits in response to tax credits in the United States. Given the positive effects of creating an industrial cluster to encourage further development, the opposite is likely to be true if the moratorium were to be made permanent and the reduction over time would likely be greater than the 85% first year effect.

Conclusions

The film and television industry were born in New Jersey and it remains an important industry for the state. New Jersey has a strong endowment of resources that make it a desirable location for film and television production. Currently there appears to be an extreme sensitivity of film and television production to the existence of film tax credit programs in a state. This has been demonstrated by both the implementation of programs in Connecticut and Michigan as well as the recent moratorium in New Jersey. In order to maintain this industry in New Jersey, reinstatement of the FILM tax credit program seems to be necessary.

From a cost and benefit analysis, it seems that there is little or no cost to the state of New Jersey due to the implementation of the film tax credit program in recent years. If the program were to be expanded, it seems likely that there will continue to be a corresponding growth in employment. There may be an opportunity to improve the design of the New Jersey FILM tax credit program to build on strengths to foster greater development of fixed infrastructure in New Jersey. Further investment will probably improve the overall cost structure of the industry in New Jersey and could improve the indirect and induced employment, wage and output multipliers. Some specific ideas have already been mentioned in the section on process implementation and further discussion is presented in the recommendations section.

Appendix A

NJIT – NJEDA Program Evaluation Services
Plan of Action

This draft plan of action outlines the proposed activities of the NJIT evaluation team to satisfy the requirements outlined in the Memorandum of Understanding dated July 21, 2010. As such, this plan is the first deliverable under the MOU.

The plan incorporates significant details and also identifies information that still needs to be gathered. The timeline is approximate and is designed to satisfy the agreed timetable. If we begin to diverge from the agreed timetable, we will alert our NJEDA contacts immediately.

We have had two “kickoff” meetings at the NJEDA offices in Trenton and one meeting at the NJ Motion Picture and Television Commission in Newark as well as numerous email exchanges where we have gathered information and documents. We have agreed to create two program reviews, one for the Technology Business Tax Credit Certificate Transfer Program (TECH) and one for the Edison Innovation Digital Media Tax Credit Program and the New Jersey Film Tax Credit Program (FILM). Exchanges where we ask questions and gather more information will continue as we proceed. Most of the documents received are informally referred to under the relevant sections below. Sections are delineated by the scope of work in the MOU.

Policy Review
(Scheduled completion date - August 17, 2010)

The second point under the scope of work indicates NJIT’s responsibilities include:
”Conducting a policy review of each of the NJEDA Programs, which will analyze the impacts the program was intended to achieve at inception and determine if the program is achieving the results it was created to achieve. This review should also take into account current policy and fiscal concerns and determine if the program is meeting these needs.”
So, we have gathered documents and begun a document review. The list of documents is below. Interviews are also planned.

<u>TECH Documents under review:</u>
1) PL 1995, c.137 (34:1B-7.42a et al.): Corporation business tax benefit certificate transfer program

2) NJ Administrative Code 19:31-12.1 (2010): NJEDA Authority Assistance Programs – Technology Business Tax Certificate Transfer Program.
3) 2009 Technology Business Tax Certificate Transfer Program Evaluation Guidelines For Making the Statutory Determinations
4) PL 2010 Chapter 20 – An act providing a temporary reduction in the annual cap for benefits under the program

FILM Documents under review:
1) PL 2005, c. 345 (54:10A-5.39 et al.): Corporation business tax credit for certain film production, digital media content expenses
2) NJ Administrative Code 18:7-3B.1:Rules to implement PL 2005, c. 345 and PL 2007, c. 257
3) Proposed amendments (Sen. Sarlo) to PL 2005, c.345 : Increasing annual cap to $50 million from $10 million and other changes.
4) PL 2010 Chapter 20 – An act providing a temporary suspension of benefits under the program

TECH Interviews proposed:
John Rosenfeld, NJEDA
Kathleen Coviello, NJEDA
Jacob Genovay, NJEDA

FILM Interviews proposed:
Senator Paul Sarlo
Assemblyman Lou Greenwald
Steve Gorelick, NJ Motion Picture and Television Commission

Implementation / Process Evaluation
(Scheduled completion date - August 31, 2010)

The third point under the scope of work indicates NJIT's responsibilities include: "Conducting an implementation/process evaluation that includes portfolio project review, interviews with practitioners and businesses, and provide recommendations to the NJEDA's Senior Leadership Team. This review should look at how each of the NJEDA Programs is being implemented and make recommendations to make the process more efficient and/or align more closely with the policy intentions." So, we have gathered documents and begun a document review. The list of documents is below. Interviews are also planned. Where possible, multiple topics will be covered with interviewee in one session.

Program enhancements incorporating "best practices" designed to encourage capital investments in permanent infrastructure and other new ideas to improve the programs will be explored and evaluated.

Documents under review:
Outline of Processing Steps – TECH

Outline of Processing Steps – FILM
Outline of Processing Steps – Digital Media
Tax Credit Transfer Agreement – TECH
Tax Credit Transfer Agreement – FILM
Buy/Sell Information Forms & Certifications – TECH
Documents under review (cont.)
Buy/Sell Information Forms & Certifications – FILM
NJEDA Board Memoranda
    9/11/07 (Recommendations), 10/9/07 (Appeals) – TECH
    9/9/08 (Recommendations), 9/15/08 (Amendment) – TECH
    9/18/09 (Recommendations), 10/21/09 (Appeals), 11/24/09 (Appeals) – TECH
    1/8/09 (Recommendations) – FILM
    2/10/09 (Recommendations) – FILM
    3/9/10 (Recommendations) – FILM

Interviews proposed:
Steve Gorelick, NJ Motion Picture and Television Commission – FILM
John Rosenfeld, NJEDA - TECH & FILM
Lee Evans, NJ Taxation – TECH & FILM
John Genz, Amper Politziner Mattia – TECH & FILM
Bruce Deichl, Tax Credits LLC - TECH & FILM
Barry Denneler, ADP – TECH & FILM
Brian O'Leary, NBC Universal – FILM and Digital Media
Applicants/Beneficiaries <*3-5 to be identified> - TECH
    Successful, Failed,and Successful Wth Difficulty
Applicants/Beneficiaries <*3-5 to be identified> - FILM
    Successful, Failed,and Successful Wth Difficulty

Metrics, Modeling and Analytics
(Scheduled completion date – September 1, 2010)

The fifth and sixth points under the scope of work indicate NJIT's responsibilities include:
"Determining value of metrics currently being collected and make recommendations for additional metrics. This review would help NJEDA's Senior Leadership Team determine the best data to measure future program results. To the extent possible, the NJEDA should be able to replicate these metrics;" and "Providing NJEDA with a template for building program evaluation elements and effective metrics into new products and programs. This template should provide the NJEDA's Senior Leadership Team with the tools required to better analyze the impact and effectiveness of programs on an ongoing basis." So, we have identified and gathered data sources and economic analysis tools to assist in the evaluation of metrics and the analysis of the programs. The list of data sources and economic analysis tools is below. Interviews to identify existing metrics and

to plan for new ones are also planned. Where possible, multiple topics will be covered with interviewee in one session.

<u>Data sources</u>:
U.S. Bureau of Economic Analysis, Bureau of Labor Statistics, and Census
NJEDA Reports
Survey estimates
New Jersey Department of Labor – Employment Figures

<u>Economic analysis tools</u>:
IMPLAN model for estimation of multiplier effects
NPV Cost Benefit Spreadsheet

<u>Interviews proposed for metrics evaluation and program analysis:</u>
Steve Gorelick, NJ Motion Picture and Television Commission – FILM
John Rosenfeld, NJEDA - TECH & FILM
Brian O'Leary, NBC Universal – FILM and Digital Media
Union representatives - FILM
    IATSE, Teamsters -
MPAA representative - FILM

Final Report
(Scheduled completion date – October 1, 2010)

The final report will be a complete program evaluation of each NJEDA Program (FILM & TECH) that includes an executive summary, a detailed report on the current status of the program as well as recommendations for further monitoring of the program.

Appendix B

MEMORANDUM OF UNDERSTANDING
for
PROGRAM EVALUATION SERVICES

between
NEW JERSEY INSTITUTE OF TECHNOLOGY (NJIT)
and
NEW JERSEY ECONOMIC DEVELOPMENT AUTHORITY (NJEDA)

This Memorandum of Understanding (MOU) effective as of the date of the last signatory hereto (Effective Date), will confirm the mutual understanding and intention between the New Jersey Economic Development Authority (NJEDA) and New Jersey Institute of Technology (NJIT). NJEDA and NJIT are collectively referred to herein as the "Parties."

WHEREAS, NJEDA was created pursuant to N.J.S.A. 34:1B-1 et seq. to promote economic development in the State of New Jersey;

WHEREAS, NJEDA manages a number of economic development programs that are intended to promote and create employment in the State of New Jersey, including the programs set forth in this MOU;

WHEREAS, Governor Christie's Fiscal Year 2011 Budget in Brief called for an evaluation of NJEDA programs to ensure that NJEDA funds and resources are used in a manner that results in the greatest return of economic development benefit;

WHEREAS, NJEDA seeks to undertake a systematic process of formally evaluating the impacts of NJEDA programs and to be better equipped to evaluate elements of NJEDA programs by establishing performance metrics for NJEDA programs;

WHEREAS, NJIT was created pursuant to N.J.S.A. 18A:64E-12 et seq., as a body corporate and politic of the State of New Jersey;

WHEREAS, NJEDA has determined that NJIT has considerable expertise in the areas of entrepreneurship, economic development, and business strategy and is the appropriate body to assist NJEDA with evaluation of its programs; and

WHEREAS, the Parties enter into this MOU as an inter-department governmental agreement pursuant to N.J.S.A. 52:14-1 et seq.

1. Work Summary.

NJIT will conduct evaluations on three (3) selected programs of NJEDA to review policy, implementation/process, value of collected measurements, and best practices; and create/determine performance metrics that can be used by NJEDA to determine program effectiveness. The programs to be reviewed include the Edison Innovation Digital Media Tax Credit Program, New Jersey Film Tax Credit Program and the Technology Business Tax Certificate Transfer Program (herein referred to as the "NJEDA Programs")

2. Scope of Work.

NJIT'S responsibilities under this MOU (the "Work") include:

- Creating a plan/schedule to complete recommended evaluations for each of the NJEDA Programs. Present plan to NJEDA Senior Leadership Team for feedback and approval;

- Conducting a policy review of each of the NJEDA Programs, which will analyze the impacts the program was intended to achieve at inception and determine if the program is achieving the results it was created to achieve. This review should also take into account current policy and fiscal concerns and determine if the program is meeting these needs;

- Conducting an implementation/process evaluation that includes portfolio project review, interviews with practitioners and businesses and provide recommendations to the NJEDA'S Senior Leadership Team. This review should look at how each of the NJEDA Programs is currently being implemented and make recommendations to make the process more efficient and/or align more closely with the policy intentions;

- On a select basis, review of best practice cases provided by the EDA for evaluation of EDA program enhancements;

- Determining value of metrics currently being collected and make recommendations for additional metrics. This review should help NJEDA'S Senior Leadership Team determine the best data to measure future program results. To the extent possible, the NJEDA should be able to replicate these metrics; and

- Providing NJEDA with a template for building program evaluation elements and effective metrics into new products and programs. This template should provide the NJEDA'S Senior Leadership Team with the tools required to better analyze the impact and effectiveness of programs on an ongoing basis.

3. Evaluation Team.

The Work will be performed primarily by Michael Ehrlich, Principal Investigator, and Dr. Bruce Kirchoff.

4. <u>Deliverables</u>.

Deliverables under this MOU will include the following:

- Detailed plan of action presented to NJEDA senior leadership team for feedback and approval; A plan, with supporting data and timeline, should also be developed to evaluate other NJEDA programs as necessary;

- Report on implementation process with recommendations to make the process more efficient and to more closely match the legislative intent;

- Draft analysis report with model of costs and benefits that incorporates existing performance metrics and proposed new metrics; To the extent possible, the metrics created should be transferable to other NJEDA programs to allow NJEDA to best track the success/impact of its products and programs and the model should be a template or guide for NJEDA to use to build product evaluation and metrics in to new programs as they are developed;

- Final report will be a complete program evaluation of each NJEDA Program that includes an executive summary, a detailed report on the current status of the program as well as recommendations for further monitoring of the program.

5. <u>Time for Completing Work</u>.

The Work is to be completed according to the following tentative schedule:

- "Plan" document with recommendations – within 2 weeks from Effective Date
- Draft analysis with model of costs and benefits – no later than 9/1/10
- Final reports with executive summary – no later than 10/1/10

NJIT will provide the NJEDA with reasonable notification if any of these milestones cannot be met, with an anticipated completion date.

6. <u>Payment</u>.

NJEDA will pay NJIT a flat fee of EIGHTY THOUSAND DOLLARS ($80,000) for its performance of the Work. The total MOU Price shall not exceed the aforementioned amount unless an increase is approved in writing by NJEDA. NJIT's performance of the Work is predicated on the NJEDA fulfilling all of its obligations related to the Work (e.g., providing necessary information and cooperation). NJIT shall invoice the NJEDA as follows: $20,000 immediately following the Effective Date; $20,000 upon NJIT's submission of the draft analysis with model of costs and benefits and $40,000 upon NJIT's submission of the final report to the NJEDA. The NJEDA shall pay all invoices within thirty (30) days.

7. Ownership and Use of Work Product.

All reports, surveys, and other information produced or generated by NJIT pursuant to this MOU shall become the sole property of NJEDA and may be used in its entirety or in part by the NJEDA at the sole discretion of NJEDA without additional compensation to or approval from NJIT. Use by NJEDA shall also include sharing and distributing such work product with other New Jersey State offices and personnel. Whenever such information is used, credit shall be given by the NJEDA as to the author/source of the information. Notwithstanding, NJIT may use any of the material it produces or develops under this MOU for teaching and research programs, and inclusion in journal articles and public presentations at academic conferences, after notification to NJEDA. Except for uses expressly permitted by this MOU, copyrights to such articles and presentations shall remain with the authors.

8. Confidential Information of the Authority.

In connection with performing the Work, NJIT and its employees may receive, review and become aware of proprietary, personnel, commercial, marketing and financial information of NJEDA, its employees, members, borrowers or business associates that is marked, identified or reasonably understood to be confidential and/or proprietary in nature ("Confidential Information"). NJIT agrees that the use and handling of Confidential Information by NJIT and its employees will be done in a responsible manner and solely for furtherance of the Work. Other than to its employees who have a need to know Confidential Information in connection with performance of the Work, NJIT agrees not to disclose any Confidential Information, without the prior written consent of NJEDA, which consent NJEDA is not obligated to grant. NJIT will be responsible to assure that its employees do not disclose any Confidential Information without the prior written consent of NJEDA. NJIT will inform each employee that receives any Confidential Information of the requirements of this Section 8 of the MOU and shall require each such employee to comply with such requirements. Confidential Information covered under this clause shall not include information that: (a) is or hereafter becomes known and available to the general public through no act or omission of NJIT; (b) is subsequently disclosed without restriction to NJIT by a third party who had the right to make such disclosure; (c) is required to be disclosed by any applicable judgment, order or decree of any court, governmental body or agency having jurisdiction or by any applicable law, rule or regulation (e.g., NJ Open Public Records Act), provided that in connection with any such disclosure, NJIT will use its best efforts to give NJEDA reasonable prior notice of the same; and (d) was known by NJIT prior to disclosure or independently developed by NJIT without knowledge of, reliance upon, or use of the NJEDA's Confidential Information.

9 Additional Provisions.

a) Commencement and Duration. This MOU will commence upon the Effective Date. Unless terminated earlier, this MOU shall remain in effect until the Work is completed, but in any event, not longer than twelve (12) months from the Effective Date. This MOU may be extended by a writing mutually executed by the Parties.

b) Amendments. This MOU may be amended in a writing mutually executed by the Parties.

c) Termination. Any Party shall have the right to terminate this MOU upon ten (10) days written notice to the other party. Upon termination, NJIT shall make reasonable efforts not to expend any additional time, expense or administrative cost in connection with this MOU. Notwithstanding any such termination of this MOU, NJEDA shall continue to be responsible to pay NJIT for Work satisfactorily completed by NJIT prior to the termination of this MOU and non-cancelable obligations incurred by NJIT prior to such time (not exceeding the total MOU price).

d) Notices. All notices required to be served or given hereunder shall be in writing and will be deemed given when received by personal delivery, by an overnight delivery service which issues a receipt from delivery, or three business days after having been mailed by certified mail, return receipt requested, and addressed as follows:

If to NJEDA: New Jersey Economic Development Authority
36 West State Street
P.O. Box 990
Trenton, New Jersey 08625-0990
Attention: Kim Ehrlich

If to NJIT: New Jersey Institute of Technology
Office of Research & Development
Fenster Hall – 3rd Floor
University Heights
Newark, New Jersey 07102-1982
Attention: Dr. Donald H. Sebastian,

S.V.P. For Research & Development

e) Reasonable Diligence. Each of the Parties will act with reasonable diligence for the purpose of satisfying the conditions set forth herein. NJIT makes no other warranties, express or implied, including, without limitation, warranties with respect to the particular results of the Work, or the merchantability or fitness for a particular purpose of the same. NJIT shall not be liable for any direct, indirect, consequential, punitive or other damages suffered by the NJEDA or any other person resulting from the Work and analysis to be performed in connection with this MOU.

f) Titles and Headings. Titles and headings are included for convenience only and shall not be used to interpret the MOU.

g) No Assignment. Each Party agrees that it will not assign this MOU or the benefits or obligations contained herein without the prior written consent of the other Party.

h) Force Majeure. Neither Party shall be liable for any failure to perform as required by this MOU to the extent such failure to perform is due to circumstances reasonably beyond such Party's control, including without limitation, labor disturbances or labor disputes of any kind, accidents, failure of any governmental approval required for full performance, civil disorders or commotions, acts of aggression, acts of God, energy or other conservation measures imposed by law or regulation, explosions, failure of utilities, mechanical breakdowns, material shortages, disease, or other such occurrences.

i) Third Party Beneficiary Rights. Neither Party intends to create in any other individual or entity the status of third party beneficiary, and this MOU shall not be construed so as to create such status. The rights, duties and obligations contained in this MOU shall operate only between the parties to this MOU.

The foregoing correctly reflects the Parties' understanding and intent.

IN WITNESS WHEREOF, the Parties have caused this Memorandum of Understanding to be duly executed and delivered as of the date and year below written and by so executing, represent and warrant they have the authority to do so.

NEW JERSEY INSTITUTE OF TECHNOLOGY

By:

Attest

Dr. Donald H. Sebastian,
S.V.P. For Research &
Development

Dated:

NEW JERSEY ECONOMIC
DEVELOPMENT AUTHORITY

By:

Attest

Caren S. Franzini
Chief Executive Officer

Dated:

State of New Jersey
DEPARTMENT OF TREASURY
OFFICE OF THE CHIEF ECONOMIST
P O BOX 004
TRENTON NJ 08625-0004

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

ANDREW P. SIDAMON-ERISTOFF
State Treasurer

February 4, 2011

M E M O R A N D U M

TO: Caren Franzini, Chief Executive Officer, New Jersey Economic Development Authority

FROM: Charles Steindel
Chief Economist, Department of the Treasury

SUBJECT: Economic Assessment of New Jersey Film Tax Credit Program

In response to your request, I am here providing an assessment of the impact of the New Jersey Film Tax Credit Program on economic activity in the state and its net effect on tax revenues. This assessment is based upon the information contained in the New Jersey Institute of Technology's (NJIT) evaluation of the New Jersey Film and Digital Media Tax Credit programs.

The NJIT report presents data on the aggregate dollar amount of film spending in the state. The assumption is made that in the absence of the credit none of these productions would have taken place. This assumption, and estimates made from an input-output model on the aggregate employment and income effects of changes in film industry activity, led to a conclusion that in 2009 the credit boosted state employment by 1,682 new jobs, and increased state product by about $259 million. The $259 million in additional activity would likely have generated at least $10 million in additional state revenue, offsetting the credit cap. Thus, the ultimate conclusion is that the credit is self-funding at its current level and warrants an expansion.

I believe that the evidence given in this report does not support its estimate of increases in state output, employment, and the resulting feed-through to state revenues derived from the credit. In my reading of the evidence, the net effect of the credit upon state activity is considerably smaller, thus suggesting that the credit has produced a net loss to state revenues.

Before going into the numbers, it is useful to take into account the rationale for subsidizing film production.[1] Basic economics teaches that governments should only subsidize activities for which the social returns exceed those that are directly earned by the labor and capital employed by the activity. Social return can include nonfinancial benefits, such as local pride, increased morale, and the improvement of the state's image. Arguments for publicly subsidizing the film industry might be summarized by the following:

1. Film productions may hire local residents. In the course of working on film projects, they can acquire valuable skills that will increase their earning potential and thus benefit the community.
2. Film productions may create a sense of excitement in an area, and the finished product can be an advertisement for the state.

The NJIT report falls short of making substantive cases to support either of these basic rationales. Lack of data is cited as the reason for not confronting the first hypothesis and the second is only referenced very briefly with an undocumented presumption that the effect of filmmaking on tourism must be positive.[2] Instead, the report concentrates on an analysis of the gross effect of film production on state employment and output. This is a common but somewhat unreliable strategy to follow in studies of this type, given the lack of fundamental detailed information.

Analysis of the Evidence on Film Production and New Jersey Output and Employment

My analysis of the evidence produced in the report strongly suggests that the loss of the credit would have surprisingly little impact on the film industry, and make virtually no difference to the overall economic activity in the state.

First, the assertion that all film production in the state would cease without the film credit is questionable. The conclusion is drawn from discussions with members of the industry who would directly benefit from the credit, and their comments about the ultimate importance of such subsidies should be taken with a grain of salt. Even so, read closely, the reported comments do not necessarily illustrate a dire need for the credit. Notably, the comment on page 14 that a project intended for New Jersey was "**put on hold**" because of the one year moratorium can be read as reflecting the effect of the credit on the **timing** of activity in the state. In other words, the project could conceivably go forward if it was known for certain that the credit would not be

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[1] There is some discussion in the report of the distinction between a subsidy in the form of an outright cash grant and a subsidy in the form of a transferable tax credit. While there are substantial administrative distinctions between such programs, from an economic point of view—and the cost to the state's taxpayers—there is no meaningful difference; both are subsidies. The report's advocacy of the state's making a standing offer to repurchase outstanding credits at a fixed discount illustrates this point.

[2] This is not as simple as it seems. First of all, for a commercial film to provide any sort of positive marketing for New Jersey, out-of-state viewers would need to be aware of the filming location, which is often concealed by the film's narrative. Furthermore, some productions set and made in recognizable parts of the state may project unreal and unflattering images rather than positive ones. Additionally, film making on location can be quite disruptive to other activities in an area, at least partly offsetting benefits.

renewed. New Jersey does have a number of natural advantages for television and film production, and the assumption that we would be zeroed out without our small credit may be extreme.

Second, even if we accept the assumption that film production, narrowly defined, would disappear in the absence of the credit, it also appears that there will still be a noticeable film and television industry in the state. Consider the fact that **the $132 million figure for 2009 production spending is equal to less than *one-tenth* the aggregate output of the state's motion picture and television industry**. Presumably, the 90% of the sector's activity that falls outside the definition of direct production involves different varieties of work, but these jobs may still provide enough training for the state's residents to obtain new careers with comparable skills (e.g.: set building in a local TV studio is somewhat comparable to set building on a major motion picture; acting in a TV commercial uses similar skills to acting in a feature film).

Third, the calculation of the employment and output effects, and the estimated lost revenue if the industry were to disappear, does not support the argument that the $10 million credit pays for itself. The estimate of overall output and employment loss was derived from an input-output model that assumed the $132 million in film production was lost without the film credit. The model reported that an additional $127 million in output can be linked to this production, thus resulting in the overall output loss of $259 million, not including the associated reductions in employment. Separate losses in personal and corporate income tax revenue were inferred from the hypothesized output loss. The following points address the study's computations:

- This calculation of a $259 million loss in state output appears to be unwarranted. The $132 million starting point is surely too large, since much of it consists of compensation to high-income cast and crew, who are likely to spend almost none of it in the state. The additional $127 million represents, as stated above, activity that can be **linked** to film production, but linkage does not imply that this output would entirely disappear with lost film production. In the absence of film production, these workers can readily shift to providing goods and services elsewhere (the police officer directing traffic around the film shoot will go on to other duties). Input-output models, by their nature, are snapshots of a structure of production at a point in time, and cannot account for shifts of this type, which are merely the redirection of activity, rather than its addition or loss.[3]

[3] Input-output linkages are often confused with the macroeconomic concept of the "multiplier." The conceptual differences are subtle but genuine. Multiplier analysis involves assessments of the dynamic effect on the aggregate quantity of output from a change in demand. Input-output analysis can be used to compute changes in the *composition of output* from a change in demand, but should not be used in isolation to compute changes in *the aggregate quantity of output* produced, as a result of a change in demand, for an entity as large as New Jersey. Furthermore, summing up direct, indirect, and induced effects in the manner done in the NJIT study may involve adding together final sales and the intermediate activity contributing to those final sales. For example, both the salary of the stage hand

- The simulation does not address alternative uses for the $10 million in film tax credits. This money would be available to stimulate activity through tax cuts, increases in state spending, or as subsidies to other businesses. The amount of activity that could have been spurred by other uses of the $10 million should be counted against the estimated stimulus from added film production.

- These arguments imply that the long-term loss to annual state output from reduced film production will be much less than $259 million, and could be well below the assumed $132 million direct effect. Such a loss would be trivial in the context of annual Gross State Product of nearly $500 billion, and smaller than the likely measurement error of this statistic. Any employment loss would also be minimal. Due to the small size of the output loss, any associated long-term tax revenue loss would almost surely be less than the savings from the end of the credit.[4] Indeed**, a study of the Massachusetts program**, taking into account the factors noted above, and using a model intended to capture the adjustment of the economy over time, **finds that revenue created from any stimulus generated by their film tax credit offset only 14% of its cost**.[5]

Effects of Other States' Actions

In defense of the proposed continuation and enlargement of the film credit, the NJIT report cites the large size of film subsidies in other states, implying that we have either neglected something that others clearly find to be beneficial, or that we need to offset policies that threaten our film industry. This line of reasoning does not support a New Jersey credit. State subsidization of an industry is equivalent to a protective tariff, and universally accepted economic reasoning is that the proper policy response to a protective tariff levied by another jurisdiction is ***not*** a retaliatory tariff. The proper response is to maintain current policies, or to provide direct assistance to workers or firms suffering long-term distress from any such tariff.[6]

Aside from this, there is growing criticism of film credits, and some states have begun to reduce their programs on the pragmatic grounds of cost and the lack of clear evidence that these programs lead to meaningful improvements in output and employment.[7]

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and the money the stage hand spends on lunch in New Jersey seem to be counted as New Jersey output; in reality they are two sides of the same coin (it could be, though, that some of the indirect and induced effects reported do incorporate additional film spending not eligible for the credit).

[4] One additional factor the NJIT report does not consider in its cost-benefit computation is the expense involved in administering the credit.

[5] "A Report on the Massachusetts Film Industry Tax Incentives," Commonwealth of Massachusetts, Department of Revenue, January 2011.

[6] The academic literature does provide some arguments in favor of protective tariffs in some circumstances, but only for industries that provide unusually large benefits to the economy at large.

[7] The Massachusetts report does not, as a matter of Revenue Department policy, take a position on continuation of the film credit or any other incentive program. For recent external analyses and news

Conclusion

If it were the case that increases in film production can be linked to faster growth of state output (which would likely be associated with increases in high-wage jobs), or to other signs of improved conditions in the state, there would be some reason to increase the film credit. The NJIT report provides little or no evidence on the second point. My conclusion from the data and analysis in the report is that the credit provides little or no stimulus to state output and employment, and any revenue generated from the additional activity is likely to fall short of the dollar cost of the credit. In light of ongoing reductions in film tax credits in some other states, it appears the policy tide is starting to run against the use of these programs as tools to promote economic growth.

on film credits see, for example, William Luther, "Movie Production Incentives: Blockbuster Support for Lackluster Policy," Special Report No. 173, Tax Foundation (January, 2010), Robert Tannenwald, "State Film Subsidies: Not Much Bang for Too Many Bucks," Center on Budget and Policy Priorities, (November 17, 2010), Tom Moroney, "No More Gran Torinos for States Losing $3.5 Billion in Revenues," Bloomberg (November 23, 2010).

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Updated December 9, 2010

STATE FILM SUBSIDIES: NOT MUCH BANG FOR TOO MANY BUCKS

by Robert Tannenwald

Like a Hollywood fantasy, claims that tax subsidies for film and TV productions — which nearly every state has adopted in recent years — are cost-effective tools of job and income creation are more fiction than fact. In the harsh light of reality, film subsidies offer little bang for the buck.

- **State film subsidies are costly to states and generous to movie producers.** Today, 43 states offer them, compared to only a handful in 2002. Over the course of state fiscal year 2010 (FY2010), states committed about $1.5 billion to subsidizing film and TV production (see Appendix Table 1) — money that they otherwise could have spent on public services like education, health care, public safety, and infrastructure.

  The median state gives producers a subsidy worth 25 cents for every dollar of subsidized production expense. The most lucrative tax subsidies are Alaska's and Michigan's, 44 cents and 42 cents on the dollar, respectively. Moreover, special rules allow film companies to claim a very large credit even if they lose money— as many do.

- **Subsidies reward companies for production that they might have done anyway.** Some makers of movie and TV shows have close, long-standing relationships with particular states. Had those states not introduced or expanded film subsidies, most such producers would have continued to work in the state anyway. But there is no practical way for a state to limit subsidies only to productions that otherwise would not have happened.

- **The best jobs go to non-residents.** The work force at most sites outside of Los Angeles and New York City lacks the specialized skills producers need to shoot a film. Consequently, producers import scarce, highly paid talent from other states. Jobs for in-state residents tend to be spotty, part-time, and relatively low-paying work — hair dressing, security, carpentry, sanitation, moving, storage, and catering — that is unlikely to build the foundations of strong economic development in the long term.

- **Subsidies don't pay for themselves.** The revenue generated by economic activity induced by film subsidies falls far short of the subsidies' direct costs to the state. To balance its budget, the state must therefore cut spending or raise revenues elsewhere, dampening the subsidies' positive economic impact.

- **No state can "win" the film subsidy war.** Film subsidies are sometimes described as an "investment" that will pay off by creating a long-lasting industry. This strategy is dubious at best. Even Louisiana and New Mexico — the two states most often cited as exemplars of successful industry-building strategies — are finding it hard to hold on to the production that they have lured. The film industry is inherently risky and therefore dependent on subsidies. Consequently, the competition from other states is fierce, which suggests that states might better spend their money in other ways.

- **Supporters of subsidies rely on flawed studies.** The film industry and some state film offices have undertaken or commissioned biased studies concluding that film subsidies are highly cost-effective drivers of economic activity. The most careful, objective studies find just the opposite.

Given these problems, states would be better served by eliminating, or at least shrinking, film subsidies and using the freed-up revenue to maintain vital public services and pursue more cost-effective development strategies, such as investment in education, job training, and infrastructure. Effective public support of economic development may not be glamorous. However, at its best, it creates lasting benefits for residents from all walks of life.

State governments cannot afford to fritter away scarce public funds on film subsidies, or, for that matter, any other wasteful tax break. On the contrary, policymakers should broaden the base of their taxes to create a fairer and more neutral tax system.

Film Subsidies Are Costly and Have Spread Rapidly

Film tax credits have become one of the most widespread ways that states subsidize private industry. Forty-three states offer tax subsidies to producers that shoot films within their borders.[1] Most of these subsidies take the form of credits against business taxes, especially taxes on corporate profits.

In the 2010 state fiscal year, states spent about $1.5 billion on film tax subsidies (Appendix Table 1). In 2009, that money would have paid for the salaries of 23,500 middle school teachers, 26,600 firefighters, and 22,800 police patrol officers.[2] In some states, such as Connecticut, Louisiana,

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[1] These are subsidies that offset corporate or individual income taxes that producers would otherwise have to pay. The seven states without such film subsidies are Delaware, Nebraska, Nevada, New Hampshire, North Dakota, South Dakota, and Vermont. Kansas', Iowa's, and New Jersey's film tax credits have been suspended; they could be reinstated in the future. In August of this year, Iowa permitted taxpayers to claim film tax credits earned before the credit had been suspended. See http://www.njfilm.org/incentives.htm; Rod Boshart, "Film tax credits resume in Iowa," *Lee-Gazette Des Moines Bureau*, August 27, 2010, http://wcfcourier.com/news/local/govt-and-politics/article_f7621b60-b228-11df-b9ea-001cc4c002e0.html; "Entertainment, Media and Communications Tax Newsletter," PricewaterhouseCoopers, March 2010, http://www.publications.pwc.com/DisplayFile.aspx?Attachmentid=3166&Mailinstanceid=15588. Some other states offer film producers less lucrative subsidies, consisting of exemptions from sales taxes and/or taxes on lodging.

[2] Based on salaries reported in the U.S. Bureau of Labor Statistics' *May 2009 National Occupational Employment and Wage Estimates*, http://www.bls.gov/oes/current/oes_nat.htm#33-0000. The mean annual salary for each of these occupations was divided into $1.26 billion, which is 84 percent of $1.5 billion, on the assumption that states offering film subsidies get back 16 cents in tax revenues on the subsidy dollar. These tax revenues are generated by the economic activity stimulated by film tax credits. See page 5 of this report for further discussion.

Massachusetts, Michigan, North Carolina, and Rhode Island, the value of film subsidies appropriated or awarded annually exceeds that of longstanding business tax incentives, such as tax credits for investment and research and development (Appendix Table 2).

The proliferation of film credits is a new phenomenon. Until 2002 state film subsidies were limited in scope. A few states offered film producers small credits against income taxes, deductions from taxable income for losses incurred in production, or loan guarantees. Other subsidies were confined to the provision of public services at no cost (for example, police details, ready access to public lands, assistance in identifying locations, and expedited permitting), or exemption from sales tax on purchases of goods from local vendors and from hotel and lodging taxes for employees working on an in-state movie shoot. These subsidies may or may not have been the best possible use of funds, but they were low-cost and therefore relatively harmless.

The new wave of film tax subsidies started in two states, New Mexico and Louisiana. Following the lead of Canadian provinces and the Canadian national government,[3] both states offered film producers generous income tax credits, equal to a percentage of the cost of shooting films incurred within their boundaries. Louisiana offered a credit equal to 25 percent of cost, with an extra 5 percentage points for purchases from in-state vendors and payroll for Louisiana residents. New Mexico introduced a 15 percent credit and then raised it in stages to 25 percent by 2007.

Since these two states first made a big pitch for film producers, similarly structured tax credits have spread rapidly across the nation in a classic "race to the bottom."[4] Louisiana's and New Mexico's film tax credits appeared to be highly successful: they induced a big jump in the number of feature films shot within the states' borders, and employment in film and TV production soared in both states. Lured by film producers' promises of similar (apparent) economic rewards, several states enacted comparable tax credits. Now, practically every state has a film tax credit.

States incorporate one of two rare features into their film tax credits — refundability or transferability— that makes them especially generous and therefore costly to sponsoring states.[5] If a producer lacks sufficient tax liability to use all of a *refundable* film tax credit, the state pays the producer the whole credit anyway, in effect giving the producer an outright cash grant. For example, suppose that a producer is awarded a film tax credit of $100,000 but has a pre-credit tax liability of only $50,000. A non-refundable credit would reduce the producer's tax liability to $0 but leave it with $50,000 in unusable credits. If the tax credit is refundable, the state pays the producer $100,000, including the $50,000 in credits it otherwise could not use.

Transferable tax credits are also lucrative deals for film producers and in the long run just as costly to the state. Producers can sell such credits to other companies that owe taxes to the state,

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3 For an overview of Canadian federal and provincial film production subsidies, see the websites "Canada Film Capital," http://www.canadafilmcapital.com/taxcredit/index.html, and "Canadian Heritage," http://www.pch.gc.ca/pgm/em-cr/evaltn/2008/prt3-eng.cfm.

4 Susan Christopherson and Ned Rightor, "The Creative Economy As 'Big Business': Evaluating State Strategies to Lure Filmmakers," *Journal of Planning Education and Research,* December 21, 2009, pp. 3-5, http://www.aap.cornell.edu/crp/upload/FilmBigBiz.pdf.

5 Massachusetts is an exception; it offers film producers a choice of either transferability or a refund equal to 90 percent of film tax credits awarded. See http://www.mafilm.org/mass-film-tax-credit-law-in-a-nutshell.

regardless of their line of business. The sale is usually undertaken with the assistance of the state itself and/or a financial intermediary that packages purchased film tax credits from multiple states to make them more attractive to potential purchasers.

Often, those purchasers are financial services firms. Insurance companies find purchases of film tax credits especially profitable, since they can use them to reduce taxes on premiums. Through the end of fiscal year 2009, insurance companies had purchased about half of all transferred Massachusetts film tax credits, for example, and other financial institutions had purchased about a quarter of them.[6] In Connecticut, Bank of America and Wachovia — two large banking institutions that have recently benefited from federal financial assistance — purchased a combined $7 million in film tax credits in 2006 and 2007.[7]

Transferability has a particularly pernicious impact on state budgeting and accountability. It allows a film producer to gain a subsidy immediately (from the sale of the credit), but the costs may not show up on the state's books for several years because purchasers of film tax credits have several years to cash them in before they expire. (Under standard state accounting rules, tax credits are "booked" in the year in which they affect revenues.) A significant percentage of purchased tax credits are claimed in years after they were purchased. For example, of the $166.3 million in film tax credits awarded in Massachusetts through the end of FY2009, 89.5 percent had yet to be claimed by taxpayers.[8]

This accounting mismatch leads some analysts to overestimate the cost-effectiveness of film tax credits in creating jobs. For a given year, these analysts count the jobs created by film production and the amount of film tax credits paid out of the state treasury. They fail to count the film tax credits "accrued" in that year, sold in the secondary market, and not paid out until later years.

Some states cap the total value of film tax credits awarded within a given time period, but caps in several states are high (see Appendix Table 1, column 2). Moreover, not all caps hold under political pressure. New York raised the amount of its cap substantially in fiscal year 2009 after the cap, designed to limit total film tax credits awarded over a five-year period, was reached within one year.[9]

Despite the Glitz, Film Subsidies Don't Work

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[6] Navjeet K. Bal, "A Report on the Massachusetts Film Tax Incentives," Commonwealth of Massachusetts, Department of Revenue, July 2009, http://www.mass.gov/Ador/docs/dor/News/2009FilmIncentiveReport.pdf, p. 21; Shelley Geballe, "Fiddling While Rome Burns: Connecticut's Multi-Mullion Dollar, Money Losing Subsidy to the Entertainment Industry," Connecticut Voices for Children, June 2009, Appendix B, http://www.ctkidslink.org/publications/bud09filmtax.pdf.

[7] Geballe, Appendix B.

[8] Bal, p. 20.

[9] Nicole Gates Anderson, "A Cliffhanger for New York's Film Industry," *Gotham Gazette*, May 4, 2009, http://www.gothamgazette.com/article/fea/20090504/202/2902. States impose a variety of conditions on eligibility for film subsidies designed to limit their cost and/or steer production outlays to residents of the sponsoring state. As the next section of this paper shows, however, even with these conditions, film subsidies do not create jobs and income for residents of host states in a cost-effective manner.

If one judges film subsidies simply by the number of productions they attract, film subsidies have indeed "worked"— at least so far. For example, in 2002, the year that Louisiana enacted its film subsidy, one motion picture project ("Evil Remains"[10] or "Trespassing") was produced within its borders. Within five years, the number of such projects had jumped to 54.[11] In Massachusetts, five feature films were shot in 2006, the year that the Commonwealth introduced its film tax credit. By 2008, the number of such movies made in the Commonwealth had climbed to 17.[12]

Given the generosity of film incentives and the mobility of film production, the powerful influence of film incentives on site selection is not surprising. No wonder that in 2006, a director filming a movie in Rhode Island (a state that offers a 25 percent subsidy) exclaimed that film executives "would shoot a movie on Mars if they could get a 25 percent tax break!"[13]

However, even if states attract productions with lucrative subsidies, the merit of such subsidies as tools of long-run economic development — which is how the entertainment industry pitches them — rests not on the number of films they attract but rather on the extent to which they generate good, stable jobs and income for residents in a cost-effective manner.[14]

Most Thorough Study Shows Cost Far Exceeds Benefit

The only independent, in-depth empirical study to date that properly evaluates a film subsidy according to this criterion was undertaken by the Massachusetts Department of Revenue. It found that in 2008:

- Massachusetts lost $88,000 in tax revenue for every new job created by the Commonwealth's film tax credit and filled by a Massachusetts resident.

- Every dollar of state tax revenue lost because of the film tax credit generated less than 69 cents in income for the Commonwealth's residents. The Commonwealth could have given its citizens a bigger financial boost at a lower cost by repealing its film tax credit, recouping the tax revenue, and sending them checks in the mail.

- For every dollar of film tax credits awarded to film producers, the Commonwealth gained only $0.16 in revenue, mostly in the form of income tax revenues withheld from film company employees. The remaining $0.84 had to be financed by higher taxes elsewhere or cuts in public

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10 http://www.louisianaentertainment.gov/film/films_by_year.cfm; http://www.imdb.com/title/tt0350232.

11 "Louisiana Motion Picture, Sound Recording and Digital Media Industries, Prepared for State of Louisiana, Louisiana Economic Development, Baton Rouge, Louisiana," Economic Research Associates, February 2009, pp. 87-89, http://www.louisianaentertainment.gov/film/files/(ERA%20report)pdf..

12 Bal, p. 7.

13 Darcy Rollins Saas, "Hollywood East? Film Tax Credits in New England," New England Public Policy Center at the Federal Reserve Bank of Boston, October 2006, pp. 2-3, http://www.bos.frb.org/economic/neppc/briefs/2006/briefs063.pdf.

14 Given the shaky state of today's economy, the temporary, part-time jobs created by film production might seem better than nothing. However, film tax credits are meant not to be a countercyclical tool but rather an instrument of economic development, improving residents' prospects for stable work and income.

services.[15] Independent studies of film subsidies in other states have estimated similar financial costs, ranging from $0.72 to $0.93 per awarded subsidy dollar.

Studies commissioned by film and tourism agencies or by the Motion Picture Association of America claim that film subsidies produce "win-win" outcomes for everyone, generating enough tax revenue so that states can expand services even as they offer film producers generous subsidies. In other words, film subsidies allegedly "pay for themselves." These studies are severely biased, as explained in the last section of this paper.

Why Film Subsidies Don't Work

1. **They are very generous,** as noted above. They give movie makers an enormous amount of money for every full-time equivalent job or dollar of income they create for residents.

2. **A large portion of the jobs they create, especially those with the highest pay, are filled by non-residents.** Most locations in the United States (other than Los Angeles and New York City) lack "crew depth" — an ample supply of workers possessing the skills needed to make a feature-length movie. However, movie-making is so mobile that producers import their own scarce talent, such as principal actors, directors, cinematographers, and screen writers. As Cathy Greenhalgh observes in her study of cinematographers, "Film making is extremely expensive and employees are hierarchically organized. Most crew members are hired locally, while top personnel travel extensively from job to job."[16] These non-resident "top personnel" enjoy the best jobs and a large chunk of the income created by feature film production.

   The Massachusetts study noted above — the only in-depth study of a film subsidy that distinguishes new jobs filled by residents from those taken by non-residents — clearly shows that the Commonwealth's film tax subsidies have disproportionately benefited non-residents. It estimates that between calendar years 2006 and 2008, residents enjoyed only 16 percent of the compensation paid to employees working on Massachusetts-based major film productions.[17]

   The Massachusetts study also estimated employment generated by the ripple effects of film subsidies. For example, employees working on a film spend some of their pay at nearby restaurants and hotels; carpenters working on sets use part of their profits to purchase tools, which increases the income of nearby hardware stores. A much larger percentage of these indirectly created jobs (88 percent) went to residents. Taking into account the jobs created both directly and indirectly, the study estimated that in 2008, residents filled 59 percent of all subsidy-induced jobs. However, since non-residents enjoyed considerably higher average wages than residents, residents earned only 40 percent of the total payroll generated both directly and indirectly by the Commonwealth's film tax subsidies.

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[15] Bal, p. 17.

[16] Cathy Greenhalgh, "Traveling Images, Lives on Location: Cinematographers in the Film Industry," in Verid Amit, ed., *Going First Class? New Approaches to Privileged Travel and Movement,* Berghahn Books (New York: 2007), p. 74.

[17] During this three-year period, 41 percent of total payroll for all credit-eligible feature films went to just 36 non-resident employees, each of whom received more than $1 million in salary per production. Author's calculations and Bal, pp. 13, 17-19.

Information from other states also suggests that many of the economic benefits of film productions go out of state. In Connecticut, only 11 percent of spending eligible for the state's film tax credit in fiscal year 2009 was described in tax credit applications as "actual Connecticut expenditures."[18] According to the Arizona Department of Commerce, film producers subsidized by the state in calendar year 2008 spent 62 percent of their budgets outside of Arizona.[19] A study of Michigan's film tax subsidies by Michigan State University concluded that in fiscal year 2008, film producers spent 47.5 percent of their budgets out of state.[20] And in 2008, the *Providence Journal*, after threatening a lawsuit, obtained information from the Rhode Island Office of Film and Television concerning the production of the film "Hard Luck." Of the $11 million spent on this production in Rhode Island, only 17 percent went to Rhode Island residents or businesses.[21]

3. **Many of the jobs created by film tax credits are temporary and part-time.** Much of the work created by film shoots for nearby residents consists of short-term jobs. Examples include extra acting parts, the construction of sets, hair-dressing, catering, security, sanitation, trucking, and other transportation services. Sometimes, even in a serious recession, the unemployed and underemployed do not get this work, as some of these slots are filled by film company employees working overtime — especially since producers often want services without much advance notice.[22]

   The Massachusetts Department of Revenue, after analyzing applications for film subsidies, reported that "most employees on the projects [film productions in Massachusetts] lasted from a few days to at most a few months."[23] According to Michigan State University, jobs in film production in Michigan during calendar year 2008 lasted an average of 23 days.[24]

4. **The tax credits reward producers for projects they might have undertaken anyway.** Every company making a movie within a state qualifies for the state's film subsidies, even if the company would have filmed in the state without the subsidies. Every state with a film tax subsidy confers such windfalls.

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18 Geballe, p. 2.

19 "Motion Picture Production Tax Credit Program: Annual Report, Calendar Year 2008," Arizona Department of Commerce, March 18, 2009, p. 9, http://www.azcommerce.com/doclib/finance/mopic%20annual%20report%20cy%202008%20final.pdf.

20 Author's calculations and Steven R. Miller and Abdul Abdulkadri, *The Economic Impact of Michigan's Motion Picture Production Industry and the Michigan Motion Picture Production Credit,* Center for Economic Analysis, Michigan State University, February 6, 2009, Table 2, p. 6, http://www.michigan.gov/documents/filmoffice/MSU_Economic_Impact_Study_269263_7.pdf.

21 Katherine Gregg, "Hollywood is here, but is price too high For State?" *The Providence Journal*, March 3, 2008, http://www.projo.com/news/content/film_credits_02_03-02-08_LM957VT_v77.365ac0a.html.

22 " '[Michigan's film tax credit] gave my boys some overtime that they were happy to get,' said Frank Rymill, co-owner of DeSantis trucking in Warren," in Tim Martin, "Film Tax Credit Draws Mixed Reviews", *Lansing State Journal*, April 7, 2010.

23 Bal, p. 8.

24 Michigan State University, Motion Picture Credit, p. 7.

The Massachusetts study concluded that about 7 percent of spending qualifying for the Commonwealth's film tax credits would have taken place even if these subsidies had never been enacted.[25] Moreover, the study likely underestimated the amount of windfalls conferred by these tax credits, such as by assuming that *no* feature films would be produced in Massachusetts if the film tax credits were repealed.

5. **Film subsidies don't pay for themselves, so state taxpayers bear the burden.** The economic activity induced by these subsidies generates insufficient tax revenue to offset their cost. As noted above, estimates of revenue gains range from $0.07 to $0.28 cents per dollar of awarded subsidy. The only studies claiming that a state film subsidy pays for itself were financed by the Motion Picture Association of America and/or a state office of film and tourism (Appendix Table 3).

   Given that 49 out of 50 states have a balanced budget requirement,[26] states offering film subsidies must therefore cut public services or increase taxes elsewhere to make ends meet. These measures stunt economic growth, offsetting the economic and revenue gains induced by film subsidies. A valid estimate of a subsidy's impact on a state's economy must take into account the negative effects of these offsetting measures.[27] Yet, only four of the ten independent studies listed in Appendix Table 3 do so.

6. **Given the economics of film production, states will have to give movie-makers generous subsidies *indefinitely* in order to "stay in the game."** Some supporters of film subsidies argue that exceedingly generous subsidies will become unnecessary once states create self-sufficient "media clusters." But the odds are against any state's creating a media cluster that is viable with small subsidies, or no subsidies at all.

   Among film subsidy enthusiasts, adherents to the "cluster" argument believe that the growth process jump-started by state film subsidies will become self-reinforcing. They argue that more and more producers will choose the state as a location in part because the local labor pool has the necessary training. The proximity of work opportunities will stimulate interest in joining the local filmmaking workforce. Related enterprises, like sound-recording and re-editing studios, will start up as their prospects improve. The supporting workforce will broaden as lawyers, accountants, engineers, electricians, and others gain film-related skills and certifications. Eventually, the state will be able present producers with all the facilities and talent they can find in Hollywood or New York, but at a much lower price, at which point the state's generous subsidies will become unnecessary.[28]

   However, two key impediments stand in the way of any state's establishing a third media cluster within the United States: pressure on film producers to minimize costs and producers' extreme geographic mobility.

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[25] Bal, pp. 9-10.

[26] Vermont is the only state lacking such a requirement.

[27] See Iris J. Lav and Robert Tannenwald, "The Zero-Sum Game: States Cannot Stimulate Their Economies by Cutting Taxes," Center on Budget and Policy Priorities, March 2, 2010, http://www.cbpp.org/cms/index.cfm?fa=view&id=3100.

[28] Christopherson and Rightor, pp. 10-11.

Film production is risky and costly. It has become especially expensive in recent years, primarily because of new technologies and the soaring pay of superstar actors. In order to continue to attract investors, producers need subsidies. Right now, the only reliable source of subsidization is government, so state subsidies are essential.[29]

The geographic mobility of film production has intensified in recent decades, for several reasons. Computerized equipment and the development of a sophisticated worldwide communications infrastructure have enabled producers to create, in effect, "moving production factories" that can operate at a wide array of locations.[30] Equipment has become smaller and lighter, and a large cadre of geographically mobile skilled film professionals has formed to adapt to these new realities. Consequently, producers can, and do, move to take advantage of the best financial deals available. While their responsiveness gives states the impression that they can capture "a piece of Hollywood" and gradually withdraw subsidies as film production takes root, mobility works both ways. If a state tries to wean producers from its lucrative financial support, they will leave for a state that continues to offer it. As *USA Today* has put it, movie production is a "gypsy-like … industry, which roams from place to place to find the best locations — and the best deals."[31] Therefore, states that have created large subsidies to lure film producers are caught in a perpetual fiscal bind.

If any states have made progress in establishing a media cluster, they are New Mexico and Louisiana, the two states that have been offering large-scale film subsidies the longest. Between 2002 and 2008 their employment in the film and video production industry increased six-fold. New Mexico has made a concerted effort to use its colleges and universities to train students in media-related skills, although experienced craftsmen and craftswomen are in scarcer supply. Louisiana has concentrated on promoting the construction of supporting infrastructure, like sound studios.

Yet, the ultimate success of New Mexico's and Louisiana's bold forays is still uncertain. In 2009, employment in film and video production fell sharply in both states — by 50 percent in Louisiana and 20 percent in New Mexico, compared to 10 percent in the nation as a whole. New Mexico's largest sound studio, Albuquerque Studios, Inc., which cost $91 million to construct, filed for bankruptcy in July of this year. (Now the state is offering loans to developers planning the construction of a new studio near Santa Fe.[32]) Louisiana has also seen one studio go bankrupt, while bribery and fraud have marred its subsidy program.[33]

Other states are beginning to question the wisdom of their film subsidies after several years of staggering budget shortfalls and the prospect of continued red ink for at least two more fiscal

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[29] Christopherson and Rightor, pp. 3-4.

[30] Kerry A. Chase, "Theater of Conflict: Commerce, Culture and Competition in the Global Entertainment Industry," http://people.brandeis.edu/~chase/research/theater.pdf.

[31] Sharon Silke Carty, "Michigan tax credit courts film industry to lure money, jobs," *USA Today,* August 17, 2009, http://www.usatoday.com/money/media/2009-08-16-michigan-movies_N.htm.

[32] David Romero, "Albuquerque Studios files Chapter 11 After many months of financial troubles," July 21, 2010, http://www.krqe.com/dpp/news/business/albuquerque-studios-files-chapter-11.

[33] Jack Egan, "Louisiana film biz hit with Controversy," *Variety*, September 10, 2009, http://www.variety.com/article/VR1118008413?refCatId=3722.

years.[34] Kansas suspended its film tax credits during 2009 and 2010[35] as one of several measures to balance its budget. Iowa suspended its film tax credit after allegations of fraud surfaced in 2008. In October of this year, Iowa's auditor reported that between $26 million and $32 million in film tax credits awarded by the state — 80 percent of the credits awarded before Iowa suspended its credit — were issued improperly.[36] New Jersey suspended its film tax credit in July. Arizona is letting its film tax credit expire in December. Rhode Island has imposed a cap on its film subsidy.[37]

Supporters of Film Subsidies Rely on Flawed Studies

One strategy that proponents have used to convince policymakers and the public that film subsidies are a boon to state economies is to commission consultants to prepare state-specific studies. The conclusions of these studies— at least those that are published— always validate the proponents' position. Ernst & Young's (E&Y's) study of New Mexico's film tax subsidies is a prominent example.[38]

Conducted at the request of the New Mexico State Film Office and State Investment Council, the study[39] concluded that in fiscal year 2008, New Mexico's film tax credits generated $1.50 in state and local revenue ($0.94 in state revenue and $0.56 in local revenue) for every dollar in tax credit paid.[40] Thus, according to this report, the tax credit more than paid for itself. This conclusion, however, differs dramatically from a study conducted by Anthony Popp and James Peach of New Mexico State University, which found that the credits generated just $0.14 in state revenues per tax subsidy dollar.[41]

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[34] See Elizabeth McNichol, Phil Oliff and Nicholas Johnson, "States Continue to Feel Recession's Impact," Center on Budget and Policy Priorities, October 7, 2010, http://www.cbpp.org/cms/index.cfm?fa=view&id=711.

[35] Kansas Department of Revenue, http://www.ksrevenue.org/taxcredits-film.htm. Also see footnote 2.

[36] Lee Rood, "80% of Iowa film program tax credits were flawed, audit finds," *Des Moines Register,* October 27, www.desmoinesregister.com.

[37] "State Film Incentives," Screen Actors Guild, http://www.sag.org/state-film-incentives.

[38] Ernst & Young also did a study for New York State on the impact of its film tax credits (reported in Table 3). The study was commissioned by the New York State Governor's Office of Motion Picture and Television Development and the Motion Picture Association of America. See "Estimated Impacts of the New York State Film Credit: Prepared for the New York State Governors Office of Motion Picture and Television Development and the Motion Picture Association of America," Ernst & Young, February 2009, http://www.southwindsor.org/pages/swindsorct_IT/New%20York%20Ernst%20%26%20Young%20State%20Film%20Credit%20Study.pdf.

[39] "Economic and Fiscal Impacts of the New Mexico Film Production Tax Credit: Prepared for the New Mexico State Film Office and State Investment Council," Ernst & Young, January 2009, http://www.nmfilm.com/locals/downloads/nmfilmCreditImpactAnalysis.pdf.

[40] "Economic and Fiscal Impacts of the New Mexico Film Production Tax Credit: Prepared for the New Mexico State Film Office and State Investment Council," p. i, .

[41] Anthony V. Popp and James Peach, "The Film Industry in New Mexico and The Provision of Tax Incentives: A Report Submitted to the Legislative Finance Committee of the State of New Mexico," Arrowhead Center, August 26, 2008, http://www.nmlegis.gov/lcs/lfc/lfcdocs/film%20credit%20study%20TP&JP_08.pdf.

The E&Y New Mexico study suffers from several flaws. Three of the most troublesome are:

- **Exaggeration of the impact on tourism.** Ernst & Young estimates that in 2007, 32 percent of the new economic activity and over 36 percent of the new revenue generated by New Mexico's film tax credit came from subsidy-induced tourism. The consulting firm based its estimate on a survey conducted by the New Mexico Department of Tourism, based in turn on a questionnaire that the department emailed to people who stopped at one of its visitor centers or asked for maps and guidebooks by regular mail.[42] The chief economist of New Mexico's Legislative Finance Committee in 2009, Norton Francis, strongly criticized the survey and E&Y's interpretation of its results.[43] Moreover, only four out of every 100 households given the questionnaire returned it; it is hard to draw even tentative conclusions from a survey ignored by such a large percentage of those polled.

- **Double counting.** After examining budget information supplied by film producers, E&Y estimated that the producers spent 21 percent of their budgets on payroll, goods, and support services that did not qualify for the New Mexico film tax subsidy. E&Y concluded that each dollar of these "non-qualified" outlays stimulated the state's economy to the same extent as a dollar of spending that qualified for the tax subsidy.

  Yet, it is highly likely that these "non-qualified outlays" went largely to *non-residents*.[44] E&Y reported that almost two-thirds of this non-qualified spending was for "producer and director compensation." As discussed above, such highly skilled talent tends to be imported from other states, especially California and New York. Consequently, these individuals likely spent a much smaller percentage of their compensation in New Mexico than resident employees did. While non-resident employees do spend money on food, housing, meals, and other items while working in New Mexico, those expenses are covered by allowances, which *did* qualify for the film subsidy and, therefore, whose economic impact had already been taken into account. E&Y's apparent assumption that highly paid non-resident employees spent most of their salaries in New Mexico, *on top of* their living allowances, amounts to double counting. Most of the independent studies listed in Appendix Table 2 assume that none, or a small fraction, of salaries paid to highly skilled employees are spent in state.

- **Lack of transparency.** E&Y's explanation of its methodology is incomplete, and the explanation the firm does provide leaves the impression that its estimates of the tax credits' economic impacts are upwardly biased even further. For example, based on surveys of film industry employees and analysis of budget data supplied by film producers, E&Y estimated that the average salary of film production workers in New Mexico was $82,400 in 2007. E&Y stated that, in light of this information, it "adjusted" the model of New Mexico's economy that it used to estimate the tax credit's statewide economic impacts; yet it did not explain what that

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[42] "Economic and Fiscal Impacts of the New Mexico Film Production Tax Credit: Prepared for the New Mexico State Film Office and State Investment Council," pp. 9-11.

[43] Chief Economist Francis also expressed concern that the respondents to the survey were unrepresentative, much more likely than New Mexico tourists as a whole to have traveled to the state to visit sites they saw in a film. Memo from Norton Francis, Chief Economist, State of New Mexico Legislative Finance Committee, 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, pp. 5-6.

[44] Ernst & Young did not indicate *why* this spending, over one-fifth of the total, failed to qualify for the subsidy.

adjustment was or why it was necessary. Moreover, according to the Bureau of Labor Statistics, the average salary in New Mexico's film and video production industry was $35,000 in 2007. E&Y's $82,400 estimate is 2.4 times larger than BLS's, yet E&Y apparently made no attempt to reconcile the two figures. Without an explanation, the reader is left without crucial details needed to evaluate E&Y's estimates.[45]

In light of these upward biases and ambiguities, and the conclusions of the more transparent study of New Mexico's film subsidies undertaken by Popp and Peach, noted above, it is highly unlikely that New Mexico's film subsidies "paid for themselves" in 2007. Consequently, to finance these subsidies, New Mexico probably had to cut state services, offsetting at least part of the subsidies' boost to jobs, income, and tax revenues for New Mexicans.

Conclusion

State film subsidies are a wasteful, ineffective, and unfair instrument of economic development. While they appear to be a "quick fix" that provides jobs and business to state residents with only a short lag, in reality they benefit mostly non-residents, especially well-paid non-resident film and TV professionals. Some residents benefit from these subsidies, but most end up paying for them in the form of fewer services — such as education, healthcare, and police and fire protection — or higher taxes elsewhere. The benefits to the few are highly visible; the costs to the majority are hidden because they are spread so widely and detached from the subsidies.

State governments cannot afford to fritter away scarce public funds on film subsidies, or, for that matter, any other wasteful tax break. Instead, policymakers should broaden the base of their taxes to create a fairer and more neutral tax system. Economic development funds should be targeted on programs that are much more likely to be effective in the long run, such as support of education and training, enhancement of public safety, and maintenance and improvement of public infrastructure. Effective public support of economic development may not be glamorous, but at its best, it creates lasting benefits for residents from all walks of life.

[45] Chief Economist Francis made a similar point in his memo to the New Mexico Legislative Finance Committee of March 7, 2009. See Francis Memo, p. 4.

APPENDIX TABLE 1

Financial Commitments to Film Incentives, by State (FY2010 unless otherwise noted)

State	Dollars Appropriated or Claimed($millions)	Remarks
Alabama	7.5	$10 million appropriated per year in FY2011 and beyond.
Alaska	20	The state has appropriated $100 million for FY10 through FY14. The $20 million is one-fifth of this five year total. In theory, all $100 million could be awarded by FY2011.
Arizona	70	The state is terminating its film incentive on December 31, 2010.
Arkansas	0	The state currently has no funds appropriated for its film incentive program.
California	100	$100 million appropriated per year from FY2010 through FY2014. However, recipients cannot begin to claim credits until taxable year 2011.
Colorado	0.3	$1.5 million appropriated in prior years; remainder has been rolled over.
Connecticut	116	FY2009. The state offers an "open-ended" subsidy, that is, it has no appropriated cap. State awards incentive to any producer meeting requirements.
Florida	53.5	Appropriated for FY2011.
Georgia	33.5	Amount claimed in calendar year 2008, latest year for which data are available. An open-ended subsidy.
Hawaii	16.2	An open-ended subsidy.
Idaho	0	One million dollars authorized but funds have never been appropriated.
Illinois	20.5	Film tax credits claimed for calendar year 2008, the latest year which data are available. An open-ended subsidy.
Indiana	2.5	Appropriated.
Iowa	12.9	Awarding of film tax credits suspended in 2008 after allegations of fraud. Figure represents film tax credits awarded in prior years yet to be claimed as of FY2010, as estimated by the Iowa Department of Economic Development. State auditor reported in October 2010 that $26 to $32 million in film tax credits were awarded improperly prior to suspension of program. An open-ended subsidy.
Kansas	0	Program suspended in 2008 because of state's fiscal difficulties
Kentucky	15	Appropriated.
Louisiana	139	An open-ended subsidy.
Maine	0	No funds appropriated in FY2010.
Maryland	2	Appropriated.
Massachusetts	100	An open-ended subsidy.
Michigan	110	An open-ended subsidy.
Minnesota	2.5	Appropriated.
Mississippi	20	Appropriated.
Missouri	4.5	Appropriated.
Montana	0	Expanded subsidy recently enacted. Only about $25,000 claimed in calendar year 2009.
New Jersey	15	New Jersey suspended its subsidy for FY2011, but is still paying out tax credits earned in prior years.

TABLE 1 (continued)

Financial Commitments to Film Incentives, by State (FY2010 unless otherwise noted)

State	Dollars Appropriated or Claimed($millions)	Remarks
New Mexico	66.7	An open-ended subsidy.
New York	350	$420 million per year available starting in FY2011 through FY2015, a total of $2.1 billion.
North Carolina	22.5	An open-ended subsidy.
Ohio	10	Appropriated.
Oklahoma	5	Appropriated.
Oregon	5	Appropriated.
Pennsylvania	74	An open-ended subsidy.
Rhode Island	15	Appropriated.
South Carolina	10	Appropriated.
Tennessee	20	Appropriated.
Texas	11	Appropriated.
Utah	7.5	Appropriated.
Virginia	1.25	Appropriated.
Washington	3.5	Appropriated.
West Virginia	10	Appropriated.
Wisconsin	0.9	Appropriated.
Wyoming	2	Appropriated.
TOTAL	1475.25	

Sources: Documents of state revenue departments, state budget bureaus, reports of state legislative fiscal reports, and other documents. Available from author on request.

APPENDIX TABLE 2

Film Tax Credits Cost as Much as Longstanding State Business Tax Credits In Some States, Like Investment Tax Credits and Credits for R&D

Tax credits claimed in millions FY2010, unless otherwise noted

State	Film Tax Credits	Investment Tax Credits	R&D Tax Credits
Connecticut	$41	$47	$15
Louisiana	$139	N/A	$19
Massachusetts	$100	$59	$91
Michigan (FY09)	$117	$127	$63
North Carolina	$23	N/A	$20
Pennsylvania	$74	N/A	$40
Rhode Island	$14	$12	$5

N/A not applicable or not available

Sources: Numerous documents from state departments of revenue and taxation, state budget bureaus, state legislative fiscal agencies, and other state fiscal studies. Available from author on request.

APPENDIX TABLE 3

Selected Results of Studies of Film Subsidies in U.S. States

State (1)	Author(s) (year)(2)	Sponsor (3)	Net Revenue Foregone per Net Job Created by Film Tax Credit (4)	Net Revenue Foregone per Net Job Created for Residents or for Residents and Non-Resident Alike? (5)	Revenue Gained from Feedback Effects per Dollar of Film Subsidy Claimed($) (6)	Does the study take into account economic costs of financing subsidy with service cuts or tax increases? (7)	Does the study recognize that some film production would take place in-state even without the subsidy? (8)
Massachusetts	MA DOR (2009)	MA Legislature	$88,000	Only for residents	$0.16	Yes	Yes
Connecticut	McMillen, et al. (2008)	CT DCED*	$33,400	Residents and Nonresidents	$0.07	Yes	No
Louisiana	Economic Research Associates (2009)	LA Legislature	$16,100	Residents and Nonresidents	$0.13	No	No
Louisiana	Legislative Finance Office (2005)	LA Legislature	$14,100	Residents and Nonresidents	$0.18	Yes	No
Michigan	Michigan Senate Fiscal Agency (2010)	MI Legislature	$44,561	Residents and Nonresidents	$0.11	Yes	No
New Mexico	Popp and Peach (2008)	NM Leg Finance Office	$13,400	Residents and Nonresidents	$0.14	No	No
New Mexico	Ernst and Young LLP (2009)	NM Film and Tourist Office	($400)	Residents and Nonresidents	$1.50	Not applicable, as subsidy allegedly pays for itself	No
Pennsylvania	ERA (2009)	PA Legislature	$13,000	Residents and Nonresidents	$0.24	No	No
New York	Ernst and Young LLP (2009)	NY Film Office	($2,000)	Residents and Nonresidents	$1.90	Not applicable, as subsidy allegedly pays for itself	No
Arizona	Arizona Department of Commerce (2009)	and MPAA**	$23,676	Residents and Nonresidents	$0.28	No	No

*CT DECD— Connecticut Department of Community and Economic Development
**Motion Picture Association of America

TABLE 3 (Sources)

Navjeet K. Bal, "A Report on the Massachusetts Film Industry Tax Incentives," Commonwealth of Massachusetts, Department of Revenue, July 2009, http://www.mass.gov/Ador/docs/dor/News/2009FilmIncentiveReport.pdf

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January 19, 2011

States Weigh Cuts in Hollywood Subsidies

By MICHAEL CIEPLY

LOS ANGELES — Preparing to deliver his first State of the State address last week, Gov. Chris Christie of New Jersey was looking at a $10.5 billion budget gap, a collapsing pension fund and a probable cut in Medicaid spending.

He was also being asked to put money aside for Hollywood.

Government subsidies for film and television productions proliferated in flush times as more than 40 states competed for entertainment work. Those subsidies face an uncertain future as new governors and lawmakers, many of them fiscal conservatives, join incumbents like Mr. Christie in trying to balance budgets without losing jobs.

Tax credits for Hollywood were recently expanded in Florida and North Carolina but are under fresh scrutiny in states like Pennsylvania, Michigan and New Mexico, all of which have new Republican governors reviewing film subsidy programs that were begun under Democratic predecessors.

No big spender has yet pulled out of the subsidy business, though Arizona, Iowa and Kansas have suspended or dropped their relatively small programs. In Missouri, meanwhile, a bipartisan review of all the state’s tax credits recommended that a film incentive be dropped, but no bill has been introduced to do so.

That has been enough to send a shudder through Hollywood, where producers have come to rely on taxpayer support for films like “How Do You Know,” “The Social Network,” “Love and Other Drugs,” “127 Hours” and many others.

“If you take that away, I think production will leave the U.S.,” a producer, Brian Oliver, said. He is about to leave for Michigan and Ohio to begin shooting “The Ides of March,” a drama directed by and starring George Clooney that follows political campaign operatives on the road to the White House. Mr. Oliver said his Cross Creek Pictures, one of the companies behind “Black Swan,” could not function without public money.

Countries like New Zealand, which is helping to underwrite a $500 million production of two films based on J. R. R. Tolkien's "The Hobbit," from Metro-Goldwyn-Mayer and Warner Brothers' New Line Cinema unit, may well pick up more production from the United States if the states cut support.

In a ferocious debate over the efficacy of film incentives — advocates say they create employment, while critics say they are inefficient and merely shuffle jobs around — New Jersey has been on the front line.

Both houses of the Democrat-controlled Legislature passed a bill on Jan. 10 reviving and expanding a tax credit that underwrites up to 20 percent of certain expenses of a film. Last year, Mr. Christie suspended the program in the fiscal crisis.

"It was one of the first things to go, and it wasn't that difficult a call," Michael Drewniak, a spokesman for Mr. Christie, said of the governor's decision to halt the credit as he confronted a ballooning deficit.

Mr. Drewniak declined to say whether Mr. Christie was inclined to sign off on the reinstated credit, though he said one factor in the decision was an expected review of the program's effectiveness.

Studies about the efficacy of film credits, which became widespread in the last eight years, have been maddeningly divergent in their conclusions, depending on methodology, the structure of the credit and, sometimes, who sponsors the report.

Looking at the credits nationwide, a report released in December by the nonprofit Center on Budget and Policy Priorities pointed to a study done for the Massachusetts Legislature in 2009 that concluded film subsidies were costing the state $88,000 a job. A similar study for New York's film office said government coffers were gaining $2,000 with each job created.

Over all, the center's report concluded that film subsidies offered "little bang for the buck." The Motion Picture Association of America, which represents the major film studios, shot back with a critique of what it called a "slipshod" report by the group, which it said was biased against government incentives.

Bob Pisano, the association's president, pointed out in an e-mail last week that film incentives might remain attractive even for states with budget problems, because, in effect, they pushed costs down the road. The credits create jobs and business and tax revenue quickly, but generally require "no cash payment on the credit until productions are completed and audited up to two years later," Mr. Pisano wrote.

But even advocates for the credits — which often give a film company direct or indirect cash payments even if no tax is owed — acknowledge that the itinerant nature of film work makes it difficult to hold on to movie jobs. This fact has often left states bidding against each other for films and television shows.

“The industry is so mobile, it can go anywhere,” said Joseph Chianese, a senior vice president with Entertainment Partners, which advises the film business on credits and other matters.

It is only natural, Mr. Chianese said, that a new group of governors and legislators should be reassessing the incentive programs, though he cautioned against assuming that even the most pressed state would be quick to abandon support for highly visible glamour jobs.

“If you retract these incentives, a lot of new facilities will be sitting empty,” Mr. Chianese said.

In New Mexico, the newly elected Republican governor, Susana Martinez, may be willing to take that risk.

Ms. Martinez, facing a budget gap of $400 million or more, hopes to save $25 million in the 2012 fiscal year by proposing that the Legislature cut the state’s film credit to 15 percent from 25 percent. That would happen even as the state’s four-year-old Albuquerque Studios, whose parent company filed for bankruptcy protection last year, has been counting on help from heavily subsidized productions like “The Avengers,” a film planned by the Walt Disney Company and its Marvel Studios unit.

In Michigan, where one of the country’s most generous subsidies can cover about 40 percent of the spending on productions like “The Ides of March,” reporting requirements for film companies have already been tightened. Now, Republican legislative majorities will join a newly elected governor, Rick Snyder, in deciding whether to scale back the credit, which may cost the state an estimated $150 million in its 2012 fiscal year, while addressing a $1.85 billion budget gap.

In Pennsylvania, Gov. Tom Corbett has been pressed by some to consider reducing or eliminating the state’s film credit, which helped support films like “Unstoppable” and “The Next Three Days,” as part of an effort to close a $5 billion budget gap. Shortly after the November election, Senator John Pippy, who is chairman of the legislative and budget committee in the state senate, told The Pittsburgh Tribune-Review that any surviving credit would require “significant justification.”

Neither Mr. Pippy nor a spokesman for Mr. Corbett responded to requests for comment.

And then there is California, where Jerry Brown, the newly elected Democratic governor, is confronting a $25 billion budget gap. Mr. Brown is proposing to cut social services and state employee pay while extending tax increases that were supposed to be temporary. He has also provoked howls of protest by insisting that state workers return 48,000 cellphones by June 1 in a bid to save $20 million.

But film and television tax credits passed under his predecessor, Arnold Schwarzenegger, remain intact at a cost of $100 million a year.

Amy Lemisch, the director of the California Film Commission, cited a report last week on the Film L.A. Web site that showed an uptick in film production in the Los Angeles area after years of decline. She attributed film crew wages of $697 million to California's credit since it began in the 2009 fiscal year.

"Right now, I'd say we're status quo," Ms. Lemisch said.

Elsewhere, though, signs point toward change.

"Were we a little too generous with the tax credits?" Randy Richardville, Michigan's new Senate majority leader, asked in an interview by phone last week.

"Some might say definitely, some might say probably and some might say maybe," Mr. Richardville said. "But almost nobody would say no."