

Estimated Impacts of the New York State Film Credit

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Overview and Summary

New York State's Empire Film Credit has attracted feature film and television production to the State of New York since 2004 by initially offering a tax credit equal to 10% of qualified New York production activities. A similar credit is available to productions in New York City, equal to 5% of qualifying New York City production expenses.

Competition from states that have recently adopted new or more generous film credits reduced the effectiveness of the Empire and NYC film credits. According to data compiled by the New York State Governor's Film Office, introduction of competing incentives from other states, including Connecticut and Massachusetts caused a \$750 million drop in New York film production from July 2006 – June 2007 as compared to the previous 12 months. To improve New York's ability to continue to attract films and television production activities, the Empire state film credit rate was increased from 10% to 30% of qualifying costs in 2008.

As described in the sections below, the 30% credit program evaluated at the \$940 million level of film spending in 2007, has the following impacts¹:

- **New York jobs created and retained: 19,512 jobs**
- **New York State and City Return-on-Investment (ROI): 1.90**

Impacts of the Film Credit

Factors Considered

Table 1 presents the impact of film production and post-production activities in New York. The estimates assume that the 30% credit rate will allow New York to retain its current level of film and post-production activity by competing with other states offering similar credits.

The ROI estimates compare the cost of the 30% credit with the additional state and local taxes collected from the 2007 level of economic activity for film and production activities receiving the credit and supporting activities. This impact analysis shows the impact of the \$940 million in direct spending of the credit-assisted productions and the retention of post-production industry activity due to the credit.

In addition to the credit-eligible production and post-production activities, economies of scale that these projects create for companies and producers attract collateral productions such as non-credit eligible features and television projects, web casts, interstitials and video shorts. Absent the credit, it is reasonable to anticipate that, due to the loss of this industry cluster effect, New York's share of US employment in the industry would continue to decline at the rate experienced from 1999 to 2004. The economic and fiscal contributions of these additional activities from media and entertainment clusters, are taken into account in the impact estimates. (See the Appendix for a more detailed description of the methodology used in the study.)

¹ The rate-of-return (ROI) estimates assume that the 30% credit applies to the 2007 level of activities for credit-eligible film, television series, and pilots receiving credits (the most recent year complete data is available). These activities generated approximately \$940 million of New York spending. The cost of the 30% credit was estimated based on the expenditure characteristics of projects receiving credits in 2007.

The analysis does not attempt to project the future level of film activity in New York that arises with the enhanced incentive. However, preliminary data compiled by the Governor's Film Office indicates a substantial increase in productions since the enhanced incentive to effect. From the Empire State Film Credit's enhancement on April 23, 2008 to the end of the calendar year, the New York State Governor's Film Office received 100 film applications, up from 60 applications for the same period in 2007. Spending on labor, facilities and vendors for the 100 projects received between April 23 and December 31, 2008 is in excess of \$1.8 billion, as compared to the \$940 million in spending for all of 2007.

The ROI does not take into account the positive impact on tourism associated with the production of feature films and television in New York. Although an additional tourism impact is not included in the analysis, there is a generally acknowledged relationship between film and television production and tourism. The Mayor of NYC recently noted the importance of local film production to New York City's tourism industry and the Economic Development Corporation of Los Angeles cited the negative impact on tourism of runaway production.² Research shows that certain locations where a successful motion picture was filmed enjoyed a 54% increase in tourism over the succeeding four years.³

Program's Impact Throughout New York Economy

In addition to generating economic impacts from direct spending by credit-assisted film productions in New York, the credit program has helped reverse the downward trend in film and television productions overall and contributed to expanded activities supporting film production, such as post-production and film processing facilities. The estimated economic and fiscal impact of the 30% film credit takes into account the contribution of the productions qualifying for credits, the increase in other production activities as well as the contribution of post-production activities.

Reversing Trend of Job Loss

New York employment in the film industry as a percentage of total US employment in the industry steadily declined over the 1999 to 2004 period. Absent the film credit, this trend would likely have continued, if not accelerated, given the proliferation of film incentives across the country. Following the adoption of the film credit, this trend was reversed. By 2007, New York enjoyed an estimated increase of 3,655 jobs from credit-eligible film and television productions, 1,815 additional jobs in non-credit-eligible production activity, and 1,561 jobs retained in post-production activities that support film and television production activities in New York and outside the state.⁴ The sum of the jobs in these impacted areas (credit-eligible productions, non-credit-eligible productions, and retained post-production activities) is 7,031 jobs.

Current Results and Looking Ahead

Based on \$940 million in direct spending by credit-eligible projects of similar characteristics as 2007 projects and additional spending by other affected film productions and post-production businesses, the film production and related post-production activities account for 7,031 direct jobs. (See Table 1.) The total impact on New York employment is over 19,500, which includes

²See *Bloomberg Touts Film, TV Impact on Economy*, Hollywood Reporter, October 20, 2008 and *What is the Cost of Runaway Production?* LAEDC, May 2005

³Riley, Roger, Baker and Van Doren (1998), 'Movie Induced Tourism', *The Annals of Tourism Research*, vol. 25, no. 4, 919 – 935.

⁴The proliferation of tax credits, coupled with the technological advancements in post-production services allow film support services to actually follow film projects. See, Orbit Digital's mobile post-production lab supporting films shooting in Connecticut. *Hollywood Reporter*, November 6, 2008

the direct impacts of film and post-production activities and the indirect impacts resulting from higher economic activity in other sectors of the economy.⁵ The economic impact is expected to grow over time with the continued expansion of New York based support facilities,⁶ and an increase in the volume of large budget feature films that is already taking place since the adoption of the 30% credit rate in April 2008.⁷

Table 1. Impact of New York Film and Retained Post-Production Activity, 2007 (\$Millions)

Economic Impact	Direct	Indirect	Total	Multiplier
Production Value	\$1,711	\$2,157	\$3,868	2.26
Income	\$816	\$1,242	\$2,057	2.52
Jobs	7,031	12,481	19,512	2.77

As shown in Table 2, the estimated credit allocation and tax impact of film productions and related activities will yield a State ROI of 1.1. When New York City credits and local taxes are included, the ROI is 1.9. The credit cost presented in Table 2 is a hypothetical showing the cost of the credit if a 30% credit applied to qualified expenditures in 2007.

⁵ The indirect economic impact of the retention of film and post-production activities was estimated using the IMPLAN model of the New York economy. Note that the multiplier associated with post-production activity is lower than the film production multiplier, resulting in a lower overall multiplier for activities under the expanded credit. Other studies have focused solely on a production multiplier in the 3:1 range See, e.g. *New York's Big Picture, Assessing New York's Position in Film, Television and Commercial Production*, Cornell University, August 2006; and *What is the Cost of Runaway Production?* LAEDC, May 2005

⁶ In May, 2008 for example, the post-production house Deluxe opened a state-of-the-art, 40,000 square foot Motion Picture Laboratory and EFILM® Digital Intermediate Facility in New York City. http://www.bydeluxe.com/highlights_details.php?highlight=54. As New York's capacity to support all elements of film production expands, the economic impact will also increase.

⁷ Because a smaller percentage of the expenditures of large budget features (greater than \$50 million) qualify for the credit, New York's ROI on this category of films is higher than other genres. Data compiled by the Governor's film office indicates that the large budget film productions have increased significantly from the level in 2007. This should contribute to a higher ROI on film and television production activity in 2008 and 2009.

Table 2. State and Local Fiscal Impact of State and New York City Film Credit Programs (\$Millions)

State Tax Revenue	Amount
Individual Income Tax	\$143.2
Sales Tax	\$34.1
Corporate Income Tax	\$9.2
Other Selective Sales Tax	\$4.7
Other Taxes	\$17.5
Total State Taxes	\$208.7
Estimated Film Credits	\$184.4
State ROI	1.1
New York City Tax Revenue	Amount
Property Tax	\$62.5
Individual Income Tax	\$75.1
Sales Tax	\$29.7
Corporate Income Tax	\$12.6
Other Selective Sales Tax	\$3.8
Other Taxes	\$11.6
Total City Taxes	\$195.3
Estimated Film Credits	\$30.7
New York City ROI	6.4
Total State and City Taxes	\$404.0
Total State and City Credits	\$215.1
State and Local ROI	1.9

Cash Flow Impact of Credits

The structure of the Empire state film production tax credit program provides an additional favorable economic impact on New York State. The program in effect, front loads economic activity by requiring production activity to occur, followed by a State review process to verify production expenditures and concluding with a production company's claiming of tax credits on a tax return filed twelve to eighteen months later. For example, film credits arising from production activities in calendar year 2007 will not be claimed until fiscal years 2008 and 2009 because of the credit certification process and the timing of tax return filing. Taxpayers can only claim the credit after receiving a Tax Credit Certificate. The taxpayer submits a final application for the credit within 60 days of completing post production. A certificate is generally approved within 30 to 60 days of receiving the final application. The taxpayer then claims the credit on the annual tax return for the year in which the project is completed. In most cases, the tax return claiming the credit is filed in December following the year in which production is completed.

Table 3 shows that film productions and related activities are expected to result in more than \$2,690 million of state and local taxes in fiscal years 2005-2010.⁸ Over the same period, estimated state and city credits claimed will total \$690.2 million. Based on the estimated taxes

⁸ Estimated annual state and local tax impacts are based on film production data supplied by the New York State Governors Office of Motion Picture and Television Development and Ernst & Young estimates.

and credits claimed from fiscal year 2005 through fiscal year 2010, tax collections exceed credits claimed by \$2,000 million.

**Table 3. Estimated New York State and New York City
Tax Collections and Film Credits by Fiscal Year
(\$Millions)**

Calendar Year	2004	2005	2006	2007	2008	2009
Fiscal Year	2005	2006	2007	2008	2009	2010
Tax Collections						
Current Year	\$208.8	\$327.2	\$439.9	\$404.0	\$546.1	\$765.8
Cumulative	\$208.8	\$536.1	\$976.0	\$1,380.0	\$1,926.1	\$2,691.9
Credits Claimed						
Tax Credit Claimed		\$60.4	\$82.2	\$106.2	\$92.2	\$349.2
Cumulative Tax Credit Claimed		\$60.4	\$142.6	\$248.8	\$341.0	\$690.2
Revenues in Excess of Cost						
Current Year Difference	\$208.8	\$266.8	\$357.7	\$297.8	\$453.9	\$416.6
Cumulative Difference	\$208.8	\$475.7	\$833.4	\$1,131.2	\$1,585.1	\$2,001.7

Appendix A
Detailed Results and Methodologies for Estimating Economic and Fiscal Impacts
of the New York State Empire Film Credit

Economic Impacts

The estimated economic impacts of the New York State film credit include the impacts of three types of activities:

- 1) the impact of credit eligible film productions,
- 2) non-credit eligible productions, and
- 3) retained post-production activity.

As described in the sections below, the direct impacts were estimated based on either production spending data from the New York State Governor’s Office for Motion Picture and Television Development or using Census data describing employment levels and trends in the film production and post production industries. Indirect and induced impacts were estimated using a 2006 IMPLAN model of New York State and Type-SAM multipliers.

Credit-Eligible Film and TV Production

Production spending for 2007 films is based on New York State film and television spending data supplied by the New York State Governor’s Office for Motion Picture and Television Development. Table A-1 below shows the detailed budget information for films of different sizes, series and pilot productions in New York in 2007. This spending totaled \$937 million in 2007.

Table A-1. New York Film & Televisions Production Spending (\$Millions)

Film Budget	Total Budget	Total NY Spend
Feature films with budgets exceeding \$50 mil	\$290.9	\$227.6
Feature films with budgets \$20-50 mil	\$165.6	\$143.3
Feature films with budgets \$5-20 mil	\$36.5	\$30.4
Feature films with budgets less than \$5 mil	\$46.2	\$44.8
Television Series	\$540.1	\$420.0
Television Pilots	\$77.2	\$71.1
Total	\$1,156.5	\$937.3

Tables A-2 and A-3 present the estimated direct and total economic impacts of each component. The unadjusted 2006 IMPLAN New York State output multiplier for film and television production (IMPLAN industry 418) is 2.35. (No adjustments were made to the IMPLAN model to estimate this impact.) Based on \$937 million of credit-eligible film and television spending, the total output impact of credit eligible productions is \$2.20 billion.

The direct personal income impact of film and television production is \$445 million, which includes \$285 of employee compensation, \$124 million of proprietary income, and \$37 million of other property type income. These impacts are based on the unadjusted IMPLAN production function for film and television production (IMPLAN industry 418). The 2006 IMPLAN income multiplier (combined labor income and property type income multiplier) for eligible film and television production was 2.52, based on the unadjusted IMPLAN industry profile.

Based on the \$937 million of production spending, IMPLAN estimates the direct employment impact at 3,655 jobs in 2007. Using the unadjusted IMPLAN employment multiplier for film and video production of 2.97, total employment from film production activities in 2007 is 10,872.

Non-eligible film and TV production:

Non-credit-eligible film and television production activity attributable to the credit program was estimated based on employment data for the film and television industry in New York over the 1999-2006 period. Between 1999 and 2004, New York film and television employment as a percentage of total US employment in the industry declined by approximately 0.9% per year – from 13% in 1999 to 8% in 2004. Given this downward trend in New York film and television jobs as a percentage of total US film and television jobs over the 1999 to 2004 period, and the increase and expansion of film incentives across the country it is expected that the trend would have continued in the absence of the film credit program. If New York film and television industry employment had continued to decline through 2006, New York employment in the industry would have been 9,472 in 2006 – 6,115 jobs fewer than the 15,587 actual jobs in 2006 under the credit program. Credit-eligible film spending in 2006 totaled \$1.1 billion and created approximately 4,300 direct jobs, meaning that the full rebound in industry employment is not captured by the 4,300 jobs that were created by credit-eligible film productions in 2006. An additional 1,815 jobs were created and are assumed to be attributable to the film credit program. These 1,815 jobs are assumed to remain constant in 2007.

Based on the unadjusted IMPLAN film and video production industry output and income per worker, the estimated 1,815 jobs associated with non-credit-eligible productions generate \$465.4 million of economic output and \$221.0 million of personal income.

Using the unadjusted IMPLAN multipliers for the film and video production industry, the indirect impacts were estimated for output, income, and employment. The total impacts, including these indirect impacts are shown in Table A-3.

Retained Post-Production Activity:

Based on U.S. Census Bureau state-by-state data describing employment in the post-production industry in each state, each state's post-production employment as a percentage of total employment was calculated. In most large states with no significant film production activity, the percentage of total state employment in the post-production industry was only 45% as large as the share in New York. Based on this calculation, it is assumed that 55% of New York's post-production activity is directly linked to film and video production activity that occurs in New York. It is further assumed that in the absence of a film credit program, this 55% of post-production activity would leave the state. This share of the post-production industry is equivalent to 1,561 jobs.

The film and video production industry in the IMPLAN model was adjusted to reflect the post-production industry using data from the U.S. Census Bureau's 2006 *Service Annual Survey*, including average compensation of \$95,093 and output per worker of \$197,331. After these adjustments were made to the 2006 IMPLAN model, the output multiplier for post-production activity for New York was 1.87.

Table A-2 shows the direct economic impact estimates by component (film and television productions of various sizes, post-production, and non-credit-eligible films). Table A-3 shows the estimated total impacts of these same components.

Table A-2. Direct Impacts (\$Millions)

Film Budget	NY Output	NY Income	NY Jobs
Feature films with budgets exceeding \$50 mil	\$227.6	\$108.1	888
Feature films with budgets \$20-50 mil	143.3	68.0	559
Feature films with budgets \$5-20 mil	30.4	14.5	119
Feature films with budgets less than \$5 mil	44.8	21.3	175
Television Series	420.0	199.5	1,638
Television Pilots	71.1	33.8	277
Total Film & Television Productions	\$937.3	\$445.2	3,655
Non-Eligible Film & TV Productions	465.4	221.0	1,815
Post Production & Allied	308.2	149.6	1,561
Total	\$1,710.8	\$815.8	7,031

Table A-3. Total Economic Impacts (\$Millions)

Film Budget	NY Output	NY Income	NY Jobs
Feature films with budgets exceeding \$50 mil	\$533.8	\$272.3	2,640
Feature films with budgets \$20-50 mil	336.1	171.4	1,662
Feature films with budgets \$5-20 mil	71.4	36.4	353
Feature films with budgets less than \$5 mil	105.1	53.6	520
Television Series	985.3	502.6	4,872
Television Pilots	166.8	85.1	825
Total Film & Television Productions	\$2,198.6	\$1,121.5	10,872
Non-Eligible Film & TV Productions	1,091.7	556.9	5,398
Post Production & Allied	577.7	379.0	3,242
Total	\$3,867.9	\$2,057.4	19,512

Fiscal Impacts

Fiscal impacts were estimated by calculating the historical ratio of tax collections to personal income and applying this ratio to the estimated personal income impacts shown in Table A-3. The ratios were estimated for each category of tax revenue reported by the U.S. Census Bureau for the state and city. The ratios are then adjusted to reflect the historical elasticity of changes in tax collections to changes in personal income.

State Fiscal Impacts

After adjusting for the estimated elasticity of tax to income, the combined state-level tax ratio for New York State in 2007 was 10.15%. The fiscal impacts were estimated by multiplying the total state tax ratio (10.15%) by the estimated personal income impact for each component (film production, post-production, and non-credit-eligible productions). The impact for each tax is proportionate to its share of the total 10.15% state tax ratio.

Table A-4. Effective State Tax Rates on Personal Income

Tax	Ratio
State sales tax	1.66
State individual income tax ⁹	6.85
State corporate income tax	0.45
Other state taxes	1.19
Total State Taxes	10.15%

City Fiscal Impacts

Using the same methodology as was used to estimate the state ratios of tax collections to personal income, the ratio for New York City was estimated at 9.49%.

The major tax categories used to estimate city tax collections are shown in Table A-5 below. For all tax categories except individual income, historical tax collections to personal income ratios were used to estimate tax impacts.

The estimated property tax impact includes incremental real property taxes paid by expanding film and television production and post-production operations as well as the real property taxes paid by indirectly affected businesses, including suppliers to the film and television production industry and retailers, hotels, restaurants, and service providers that sell goods and services to the employees of production-related businesses and indirectly affected businesses. The New York City commercial rent tax is included in the “other” tax category.

Table A-5. Effective City Tax Rates on Personal Income

Tax	Ratio
Property tax	3.04
City sales tax	1.44
City individual income tax ¹⁰	3.65
City corporate income	0.61
Other city taxes	0.75
Total	9.49%

⁹ The top marginal income tax rate of 6.85% was applied to personal income impacts.

¹⁰ The top marginal income tax rate of 3.65% was applied to personal income impacts.

Appendix B – Impact of 30% Empire Film Credit Rate

Figure B-1 shows the employment impact of the film credit at the 10% rate from April 23, 2007 to February 2, 2008 and at the 30% rate from April 23, 2008 to February 2, 2009. The increase in the credit rate increased production spending by credit-eligible film and television productions from \$739 million in the 2007-2008 period to \$2,038 million during the same period in 2008-2009. Figure B-1 shows that the estimated employment created by the program increased from 15,319 to 31,645 after the adoption of the higher credit rate.

Figure B-1
Total Direct and Indirect Employment Impact of Empire Film Credit at 10% and 30% Rates*

