Economic and Fiscal Impacts of the New York State Film Production Tax Credit

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Prepared by:

HR&A Advisors, Inc.

99 Hudson St, Third Floor

New York, NY 10013



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Executive Summary

On behalf of the Motion Picture Association of America (MPAA), HR&A Advisors, Inc. ("HR&A") conducted an economic and fiscal impact analysis of the New York State Film Production Tax Credit. This study is an update of the 2009 report *Estimated Impacts* of the New York State Film Credit conducted by Ernst and Young and their subsequent 2010 update. As in that report, HR&A examines the economic impacts of the New York State Film Production Tax Credit program in terms of full-time-equivalent employment, economic spending, personal income, and fiscal impacts to the State and City of New York. The timeframe for this analysis is calendar year 2011, the last full year for which data is available.

The New York State Film Production Tax Credit (the Credit) was enacted in August 2004 with applications commencing November 1, 2004. Originally the program granted a Credit equal to ten percent of qualified "below-the-line" expenditures, defined as production expenses incurred in New York State, excluding the cost of talent, directors, producers, writers and story acquisition rights. In 2008, the Credit was increased to cover 30 percent of qualified below-the-line expenditures. While the multi-year availability of funding for this Credit was uncertain during the initial years, legislation enacted in August 2010 created an additional pool of funding for the Credit, allocating \$420 million annually to the program from 2010 through 2014.

Key findings from the assessment of the Credit include:

- Since 2004, the number of productions participating in the program has steadily increased from a total of 18 productions in 2004 to 135 productions in 2011. Spending on goods and services in New York State by these qualified productions has also significantly grown from \$600 million in 2004 to \$1.5 billion in 2011, an increase of 155 percent.
- After declining substantially in the early 2000s to a low of about 32,500 in 2004, employment in the film production industry in New York State has rebounded significantly, reaching about 46,100 as of 2011, the highest level in the past decade.
- The film production industry in New York State has grown despite an overall decline in private employment statewide. In New York State the film production industry grew by nearly 25 percent between 2008 and 2011, while private sector employment as a whole declined by 1.6 percent.
- In 2011, the Credit supported **28,900 jobs across all industries in New York State**, including 12,600 jobs directly associated with qualified and non-qualified productions and 16,300 supported through multiplier effects.
- The Credit also generated \$6.9 billion in economic spending and \$4.2 billion in personal income to the New York State economy in 2011.
- New York State **collected an estimated \$366 million in taxes** from economic activity generated by the Credit in 2011.
- New York City **collected an estimated \$382 million in taxes** from economic activity generated by the Credit in 2011.
- Tax revenues to New York State and New York City totaled \$748 million compared to the present value of the 2011 credit distribution of \$335 million, resulting in a return on investment (ROI) of 2.23 for the Credit, i.e. for every \$1.00 of credit distributed, the State and City received a combined \$2.23 in taxes.

I. Introduction

THE NEW YORK STATE FILM PRODUCTION TAX CREDIT

New York has a long and illustrious history as a center of the film and television production in the United States. In order to remain an attractive place to film and produce motion picture and television programs, New York State enacted the Empire State Film Production Tax Credit in 2004. The program granted a credit equal to ten percent of qualified below-the-line expenditures, defined as production expenses excluding the cost of talent, directors, producers, writers, and story acquisition rights incurred in New York State. In 2008, the Credit was increased to cover 30 percent of qualified below-the-line expenditures. While funding for this Credit was limited to annual appropriations during its initial years, in August 2010 legislation was revised to create an additional pool of \$420 million per year for the program from 2010 through 2014.

In addition to increasing the annual allocation, the following changes were made to the Credit rules and administration:

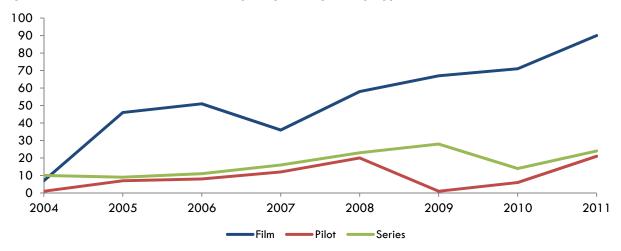
- Ten percent of principal photography shooting days for Level 2 productions¹ must occur at a "Qualified Film Production Facility."²
- Seventy-five percent or more of total post-production costs must be incurred in New York State.
- Taxable purchases must be made from vendors that are registered to collect and remit State and local sales and use taxes in New York State.
- Promotional materials must be included in the DVD or end credits.

As a result of the continued enhancements to the Credit program, the number of films, television series, and television pilots participating in the program has steadily increased. **Figure 1** presents the number of films, series, and pilots that submitted an initial application for the Credit since 2004. The number of films utilizing the Credit in particular has increased substantially since its introduction, from seven in 2004 to 90 in 2011, the last full calendar year for which data is available. The number of television programs participating has more than doubled, growing from ten in 2004 to 24 in 2011. As of mid-November 2012, the number of productions for 2012 is on par with 2011's performance. The New York State Governor's Office for Motion Picture and Television Development reports that in 2012, 126 productions have applied for the Credit, which includes 77 films and 29 television programs.³

¹ Level 1 productions only have to film at a Qualified Production Facility for one day.

² Qualified production facilities in New York City must: have at least one sound stage that is sound proofed to industry standards (Noise Criteria of 30), have a permanent lighting grid that is at least 16 feet from the floor, and HVAC that can support filming needs without supplemental units. Sound stages must also be column free.

³ 2012 data is through November 14, 2012.





Source: New York State Governor's Office for Motion Picture and Television Development

The amount these productions spend in-state on goods and services, which has ranged between approximately \$600 million (2004) and \$1.83 billion (2008), is of critical importance to the State's economy. Since the Credit was increased to 30 percent in 2008, there has been significant growth in the amount of spending by television and film productions as shown in **Figure 2**. In particular, the four-year extension enacted in 2010 resulted in a substantial increase in spending by television productions, as it provided certainty that the Credit would be available several years into the future. This increased spending by television productions is especially encouraging given the extent to which successful television programs provide a stable base of employment for production workers and make consistent use of New York production facilities. As of mid-November, 2012, film and television spending in New York State was \$1.9 billion, surpassing the 2008 high point with six weeks left in the calendar year.⁴

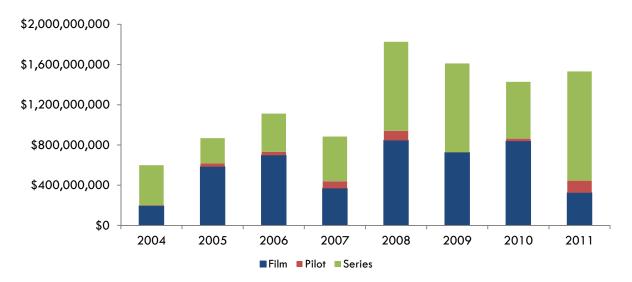


Figure 2: New York State Spending by Productions Participating in Program by Type, 2004-2011

Source: New York State Governor's Office for Motion Picture and Television Development

⁴ 2012 data is through November 14, 2012

EMPLOYMENT IN FILM AND TELEVISION PRODUCTION

The impact of the Credit is evident by examining trends in motion picture and television production employment over the life of the Credit. After declining substantially in the early 2000s, to a low of about 32,500 in 2004, employment in the film production industry steadily increased following the introduction of New York State's ten percent Empire Film Credit in 2004.

As indicated in **Figure 3**, employment in the industry continued to increase with enhancements to the Credit. In particular, the enactment of the \$420 million multi-year commitment to the Program, for 2010 through 2014, led to a robust expansion in the industry. With more certainty about the future availability of the Credit, and economic stabilization in the wake of the Great Recession, employment in the film and television production industry in New York is experiencing a growth period beginning in 2010, with employment increasing to 46,100 in 2011.

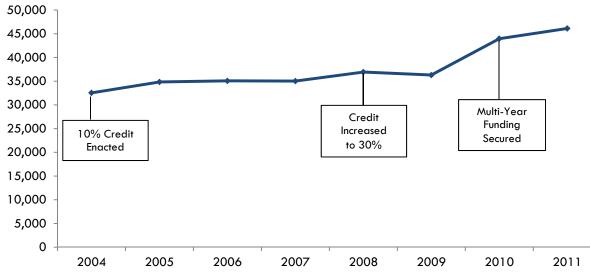
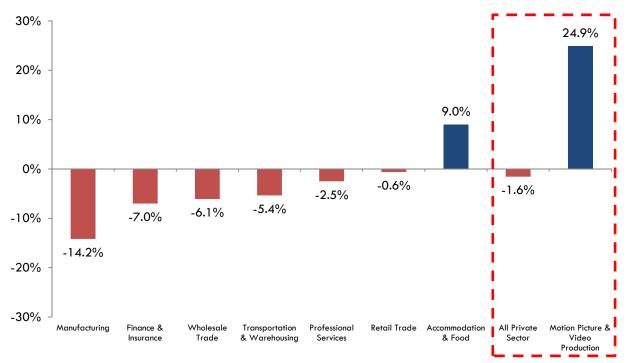


Figure 3: New York State Employment in Motion Picture and Video Production, 2004-20115

This growth takes on added importance given the continued economic struggles facing the State in the aftermath of the Great Recession. Between 2008 and 2011, New York State's motion picture and video production sector added 9,200 jobs, a growth rate of 25 percent; by contrast, the State lost approximately 112,000 private sector jobs over the same period, with total private sector employment falling from 7,163,000 in 2008 to 7,051,000 in 2011, a decline of nearly two percent. **Figure 4** compares the growth rate of the film production industry in New York State with that of other key industry sectors in the State. Employment declined in seven of these eight other major industry sectors, with only the film production industry and accommodation and food services growing during this time. In these difficult economic times, film production has proven to be a solid source of jobs for New York State residents.

Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages; HR&A Advisors, Inc. Analysis

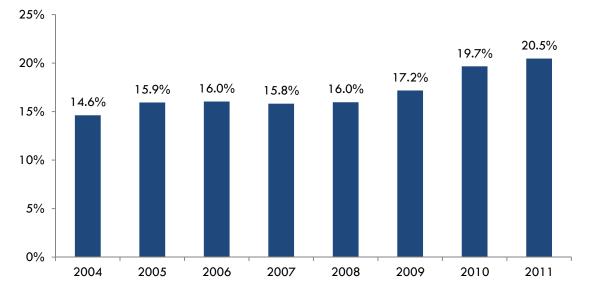
⁵ This analysis defines film and television employment as NAICS 51211: "Motion picture and video production," NAICS 51212: "Motion picture and video distribution," and "NAICS 51219: "Post production and other motion picture and video industries." The employment number is greater than the NY State Comptroller's number which only includes codes 51211 and 51219 but is less than the MPAA's calculation of employment which includes additional NAICS codes.





Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages; HR&A Advisors, Inc. Analysis

The revival of New York's motion picture and television production industry is even more impressive when viewed in the national context, as shown in **Figure 5**. Between 2005 and 2008, when the ten percent Credit was in place, New York State's share of total U.S. employment stabilized, remaining at approximately 16 percent from 2005 to 2008. If New York State's share of U.S. employment continued to grow at this flat rate through 2011, it would have resulted in only about 36,000 jobs in 2011. Instead, with the deepening of the Credit, in 2008, and the multi-year appropriation, in 2010, New York State's share of U.S. employment grew at an average rate of 1.5 percent annually, resulting in the State's share of national employment increasing to 20.5 percent, and approximately 46,100 film and television production jobs in New York State in 2011.





Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages; HR&A Advisors, Inc. Analysis

II. New York State and New York City Economic Impact Analysis

OVERVIEW OF ECONOMIC IMPACT ANALYSIS

HR&A conducted an analysis in order to determine the economic impacts of the New York State Film Production Tax Credit in terms of employment, economic spending, and income generated within the State of New York and City of New York for 2011. Regional economic impact analysis is predicated on the concept of the "multiplier effect" of direct economic spending or direct jobs. Each dollar of direct spending or each job created by the film or television production industry supports further spending and job creation in the region because industries are interdependent and purchase goods and services from each other. When a film or television production is attracted to New York State by the Credit, in-state purchasing by the production stimulates additional spending on inputs by supplier businesses to meet new demand, motivating increased spending by that firm's suppliers, and promoting spending and job creation throughout the State economy.

HR&A employed the 2010 IMPLAN model in order to analyze the economic impacts of the spending and employment generated by the Credit. In order to capture the discrete economic impacts to New York State (including New York City) and New York City alone, two IMPLAN models were utilized, a Statewide model and a City-specific model. These models estimate how changes to sector specific employment or spending can affect the entire State or City economy through multiplier relationships between sectors and new economic spending. The total economic impacts generated by initial changes in the economy can be disaggregated into direct, indirect, and induced effects.

- The **direct effect** represents the initial change in economic spending or employment attributable to a policy, project, or event.
- The **indirect effect** represents the change in economic spending or employment by businesses that supply the industry that is directly affected.
- The **induced effect** represents the change in household spending of employees who are compensated for working in directly and indirectly affected industries.

This analysis considers two sources of direct economic impacts. The first source is in-state spending by film, television series, and television pilots that participate in the Credit program. This spending includes spending on wages and salaries of above- and below-the-line employees, equipment, local services, and other inputs to the production process. For the New York State economic impact model, all in-state spending was included. For the New York City model, only spending attributed to New York City was included. The methodology for determining the New York City portion is detailed in the technical appendix.

The second source is in-state employment associated with non-qualifying productions. While non-qualifying productions, such as commercials, music videos, and reality television shows, do not make direct use of the Credit, these types of productions are able to take advantage of the clustering effect of film and television production that is incentivized by the Credit, such as a robust infrastructure of production facilities, a common source of equipment and service suppliers, and a deep pool of industry labor. For the New York State economic impact model, all in-state employment associated with non-qualifying productions was included. For the New York City model, only employment attributed to New York City

was included. The methodology for determining the New York City portion is detailed in the technical appendix.

NEW YORK STATE ECONOMIC IMPACTS: EMPLOYMENT, ECONOMIC SPENDING, AND INCOME

In 2011, HR&A estimates the New York State Film Production Tax Credit supported:

- Approximately 28,900 full-time equivalent jobs in New York State, of which 12,600 jobs supported the direct activities of qualified and non-qualified production activities, and 16,300 jobs were created by indirect and induced economic activity.
- Approximately \$4.2 billion in personal income to New York State residents, of which about \$2.3 billion accrued to persons and businesses directly involved with qualified and non-qualified production activities, and \$1.9 billion accrued to persons and businesses involved with indirect and induced activities.
- Approximately \$6.9 billion in economic spending in the New York State economy, of which \$3.8 billion represents direct spending of qualified and non-qualified production activities, and \$3.1 billion represents spending generated by indirect and induced economic activity.

Detailed results are shown in **Figure 6** below.

Economic Impact	Direct Impact	Indirect and Induced Impact	Total Impact	Employment Multiplier
Employment	12,600	16,300	28,900	2.29
Income	\$2,339,700,000	\$1,901,500,000	\$4,241,100,000	1.81
Spending	\$3,839,400,000	\$3,070,300,000	\$6,909,700,000	1.80

Figure 6: New York State Economic Impacts of Qualified and Non-Qualified Productions in 2011

Notes: All amounts are in 2011 dollars; Employment converted to FTE using conversion table published by MIG; Income consists of employee compensation, proprietor's income, and other property income; Multiplier is equal to the Total Impact divided by the Direct Impact.

Source: HR&A Advisors, Inc. Analysis; IMPLAN; New York State Governor's Office for Motion Picture and Television Development; U.S. Bureau of Labor Statistics

NEW YORK CITY ECONOMIC IMPACTS: EMPLOYMENT, ECONOMIC SPENDING, AND INCOME

In 2011, HR&A estimates that the New York State Film Production Tax Credit supported:

- Approximately 23,000 full-time equivalent jobs in New York City, of which 11,300 supported the direct activities of qualified and non-qualified production activities, and 11,700 were created by indirect and induced economic activity.
- Approximately \$3.9 billion in personal income to New York City residents, of which nearly \$2.3 billion accrued to persons directly involved with qualified and non-qualified production activities, and \$1.6 billion accrued to persons involved with indirect and induced activities.
- Approximately \$6.1 billion in economic spending in the New York City economy, of which \$3.6 billion represents direct spending of qualified and non-qualified production activities, and \$2.5 billion represents spending generated by indirect and induced economic activity.

Detailed results are shown in **Figure 7**.

Economic Impact	Direct Impact	Indirect and Induced Impact	Total Impact	Employment Multiplier
Employment	11,300	11,700	23,000	2.04
Income	\$2,260,900,000	\$1,609,300,000	\$3,870,200,000	1.71
Spending	\$3,617,200,000	\$2,458,000,000	\$6,075,200,000	1.68

Figure 7: New York City Economic Impacts of Qualified and Non-Qualified Productions in 2011

Notes: New York City impacts are a subset of New York State impacts; All amounts are in 2011 dollars; Employment converted to FTE using conversion table published by MIG; Income consists of employee compensation, proprietor's income, and other property income; Multiplier is equal to the Total Impact divided by the Direct Impact.

Source: HR&A Advisors, Inc. Analysis; IMPLAN; New York State Governor's Office for Motion Picture and Television Development; U.S. Bureau of Labor Statistics

III. New York State and New York City Fiscal Impact Analysis

TAX REVENUE GENERATION

The direct, indirect, and induced effects generated by the Credit represent economic activity that generates tax revenue for the State of New York and City of New York. HR&A's methodology for calculating effective tax rates on personal income generated by the Credit is detailed in the technical appendix. It is important to note that this fiscal impact analysis considers only tax revenue generated for New York State and New York City, and not local tax revenues that may be generated by film and television production in other municipalities. As a result, the total benefit of the Credit to public coffers in the State is higher than the fiscal impacts reported below.

HR&A estimates that economic activity supported by the New York State Film Production Tax Credit generated about \$366.5 million in New York State tax revenues in 2011, including \$231 million in individual income tax revenue. Detailed results are shown in **Figure 8** below.

Тах	Total
Individual Income Tax	\$231,200,000
Corporate Income Tax	\$17,100,000
Sales Tax	\$49,400,000
Selective Sales Tax	\$46,000,000
Other Taxes	\$22,800,000
Total	\$366,500,000

Figure 8: New York State Fiscal Impacts of Qualified and Non-Qualified Productions in 2011

Notes: All amounts are in 2011 dollars.

Source: HR&A Advisors, Inc. Analysis; New York State Department of Taxation and Finance; U.S. Census Bureau State Government Finances; Bureau of Economic Analysis

HR&A further estimates that the Credit generated about \$382 million in New York City tax revenues, including nearly \$149 million in property tax revenues and \$112 million in individual income tax revenues. Detailed results are shown in **Figure 9**.

Тах	Total
Property Tax	\$148,900,000
Individual Income Tax	\$112,400,000
Corporate Income Tax	\$32,600,000
Sales Tax	\$46,200,000
Other Taxes	\$41,600,000
Total	\$381,700,000

Figure 9: New York City Fiscal Impacts of Qualified and Non-Qualified Productions in 2011

Notes: All amounts are in 2011 dollars.

Source: HR&A Advisors, Inc. Analysis; New York State Department of Taxation and Finance; U.S. Census Bureau State Government Finances; Bureau of Economic Analysis

RETURN ON INVESTMENT (ROI) ANALYSIS

HR&A estimates the return on investment (ROI) by comparing the projected New York State and New York City tax revenues generated by activity sustained by the New York State Film Production Tax Credit to the estimated present value of the Credits granted. An important feature of the Credit is that although the State benefits almost immediately from the economic and fiscal activity engendered by the Credit, the State disperses the approved Credit over a number of years. This represents an added cash-flow benefit to the State. For distributions of less than \$1 million, the Credit is typically paid out in the year following project completion. For distributions valued between \$1 and \$5 million, the Credit is paid out in equal sums over the two years following project completion. For distributions of ver \$6 million dollars, the Credit is paid out in equal sums over the three years following project completion. The New York State Governor's Office of Motion Picture and Television Development projects that Credit amount for 2011, based upon Form C (initial) and Form E (final) application documents submitted by productions, is \$348 million. As shown in **Figure 10**, applying a discount rate of 1.52 percent⁶ to the staggered payment schedule, results in a present value of \$335 million.

Figure 10: Estimated Credit Payouts for 2011 Productions

Present Val of Payo		Total Cash Payout	Payout 2012	Payout 2013	Payout 2014	Payout 2015
\$335,190,3	38	\$348,411,483	\$45,012,016	\$128,240,301	\$106,300,587	\$68,858,580

Source: New York State Governor's Office for Motion Picture and Television Development

As detailed in **Figure 11**, HR&A estimates the return on investment (ROI) of the Credit in 2011 to the State of New York to be equal to 1.09, and the combined ROI to the State and City of New York (the City incurs no credit expense) to be 2.23. The ROI provides an overall measure of the fiscal benefit of the Credit. The calculated ROI of 2.23 suggests that for every allocation of \$1.00, New York State and New York City receive a combined \$2.23 in tax revenue.

⁶ In order to reflect the time value of money, HR&A discounts the value of future payouts at an annual rate of 1.52 percent, which corresponds to the yield rate on the 2011 Series A New York State Tax-Exempt General Obligation Bonds that matures in 2015 (CUSIP 649791 DB3).

Тах	Total
New York State Tax Impacts	\$366,500,000
New York City Tax Impacts	\$381,700,000
Total Tax Impact	\$748,200,000
Present Value of Estimated Film Credit	\$335,200,000
ROI	2.23

Figure 11: Return on Investment Analysis for 2011 Productions

Notes: All amounts are in 2011 dollars; Present value of film credit calculated by discounting credit payouts in 2012-2015 at 1.52% annually to reflect the yield rate on the 2011 Series A New York State Tax-Exempt General Obligation Bonds that matures in 2015 (CUSIP 649791 DB3).

Source: HR&A Advisors, Inc. Analysis; IMPLAN; US Census Bureau; Independent Budget Office of the City of New York; New York State Department of Taxation and Finance; New York State Comptroller's Office

IV. Technical Appendix

OVERVIEW OF ECONOMIC IMPACT MODELING PROCESS

As is referenced in the New York State and New York City Economic Analysis section of this report, HR&A employed the 2010 IMPLAN economic model, the latest available model, in order to analyze the economic impacts of the Credit. For each dollar of spending in the economy, IMPLAN traces the pattern of commodity purchases and sales between 440 industries within the specified geography. HR&A utilized two IMPLAN models for this analysis: a model for New York State and a model for New York City. HR&A made no adjustments to the 2010 IMPLAN industry multipliers in either model. Since employment estimates generated by the IMPLAN model include both full-time and part-time workers, HR&A adjusted the direct, indirect, and induced employment impacts for each industry estimated by IMPLAN to reflect full-time equivalent employment using adjustment factors published by MIG Inc., the makers of IMPLAN.

ECONOMIC IMPACTS OF QUALIFIED PRODUCTION ACTIVITY

HR&A's findings for qualified production impacts are based upon data on spending by qualified productions provided by the New York State Governor's Office of Motion Picture and Television Development. HR&A considers spending by qualified productions in New York State during the year in which each production initially applied for the Credit.

HR&A utilized aggregated data from the Form C's filled out by productions during the Credit application process (See the "Additional Materials" section). These forms disaggregate annual spending into fortynine budget categories, consisting of both above-the-line and below-the-line expense types. This detailed budget data allowed HR&A to categorize each type of spending into the most appropriate category when conducting the economic modeling through IMPLAN, enhancing the robustness of the input-output modeling process.

For each budget item, qualified spending is further disaggregated based upon whether it was spent in association with production in New York City or in New York State outside of New York City. Using this data, HR&A was able to estimate economic impacts of qualified production spending to New York State and New York City. Spending by productions that do not qualify for the Credit is not disaggregated by location; in this instance, HR&A assumes New York City's proportion of non-qualified spending is the same as qualified spending for each budget item. HR&A estimates that 92.1 percent of qualified production spending in New York State occurred in New York City. The amount of spending by qualified productions in New York State is quantified by budget category and location in **Figure A-1**.

Figure A-1: Detailed Spending by Qualified Productions in 2011

	New York State	New York City	New York City Share of New
	Spending	Spending	York State Spending
STORY & RIGHTS	\$4,369,213	\$4,369,213	100.0%
WRITING	\$20,681,594	\$20,680,160	100.0%
PRODUCERS & STAFF	\$76,448,082	\$74,222,326	97.1%
DIRECTOR & STAFF	\$27,649,120	\$25,745,881	93.1%
TALENT & STAFF	\$224,635,111	\$193,216,853	86.0%
TRAVEL AND LIVING EXPENSES	\$10,985,634	\$5,832,011	53.1%
FRINGE BENEFITS (ALT)	\$28,328,902	\$26,992,881	95.3%
PRODUCTION STAFF	\$70,887,217	\$65,301,499	92.1%
EXTRA TALENT	\$41,002,536	\$38,354,478	93.5%
CAMERA	\$56,149,554	\$51,284,819	91.3%
ART DEPARTMENT	\$19,754,128	\$18,628,516	94.3%
SET CONSTRUCTION	\$64,310,953	\$61,942,620	96.3%
SPECIAL EFFECTS	\$6,691,292	\$5,979,173	89.4%
SET OPERATIONS	\$61,326,891	\$56,090,288	91.5%
ELECTRICAL	\$66,257,749	\$61,850,813	93.3%
SET DRESSING	\$56,742,403	\$51,760,979	91.2%
ACTION PROPS	\$19,963,314	\$18,413,616	92.2%
PICTURE VEHICLES/ANIMALS	\$5,324,264	\$4,755,778	89.3%
SPECIAL PHOTOGRAPHY	\$1,325,012	\$1,284,514	96.9%
WARDROBE	\$47,256,513	\$44,260,097	93.7%
MAKEUP & HAIRDRESSING	\$23,010,653	\$21,139,120	91.9%
PRODUCTION SOUND	\$15,289,393	\$13,928,671	91.1%
LOCATIONS		\$93,301,413	91.7%
	\$101,781,188		
TRAVEL & LIVING (BTL)	\$3,581,444	\$927,091	25.9%
VIDEO TAPE TRANSPORTATION	\$1,861,264 \$122,969,642	\$1,697,275	91.2% 91.4%
FILM AND LAB		\$112,347,793	91.4%
	\$11,578,716	\$10,593,334	97.3% 97.8%
	\$560,556	\$548,203	
	\$59,783,544	\$59,164,786	99.0%
	\$226,900	\$226,900	100.0%
	\$18,034,017	\$17,166,418	95.2%
SPECIAL UNIT	\$3,276,300	\$2,526,300	77.1%
FRINGES- SHOOTING PERIOD	\$121,128,362	\$112,936,864	93.2%
EDITING & PROJECTION	\$17,699,567	\$17,369,324	98.1%
MUSIC	\$9,245,142	\$9,235,693	99.9%
SOUND (POST PRODUCTION)	\$8,224,648	\$8,082,510	98.3%
FILM AND STOCK SHOTS	\$8,678,949	\$8,538,133	98.4%
VISUAL EFFECTS	\$5,933,492	\$5,901,373	99.5%
TITLES, OPTICALS, INSERTS	\$1,452,396	\$1,434,749	98.8%
FRINGES- POST PRODUCTION	\$2,569,355	\$2,520,093	98.1%
INSURANCE	\$3,687,413	\$3,640,751	98.7%
UNIT PUBLICITY	\$776,884	\$615,174	79.2%
PRODUCT PLACEMENT	\$91,000	\$91,000	100.0%
GENERAL EXPENSES	\$10,711,154	\$9,076,213	84.7%
AMORT	\$88,564,410	\$88,198,352	99.6%
FRINGES- OTHER	\$791,202	\$791,200	100.0%
INSURANCE CLAIMS	\$43,500	\$0	0.0%
COMPLETION BOND	\$1,172,161	\$586,081	50.0%
CONTINGENCY	\$6,679,326	\$2,290,932	34.3%
GRAND TOTAL	\$1,559,492,063	\$1,435,842,259	92.1%

Notes: Assumes that proportion of non-qualified spending in New York City is the same as qualified spending for each budget item.

Source: New York State Governor's Office of Motion Picture and Television Development; HR&A Advisors, Inc. Analysis

The disaggregated spending from the New York State Spending column in **Figure A-1** was inputted into the IMPLAN modeling software to calculate the economic impacts of qualified production in New York State. The disaggregated spending from the New York City Spending column was used to calculate the economic impacts of qualified production in New York City. The estimated amounts of direct, indirect, and induced employment, economic spending, and personal income attributable to qualified productions in New York State and New York City in 2011 and are included in **Figure A-2**.

Figure A-2: Economi	c Impacts of Qualifie	ed Productions in 2011
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Economic Impact	Direct Impact	Indirect and Induced Impact	Total Impact
Employment	5,800	7,400	13,200
Income	\$930,900,000	\$805,800,000	\$1,736,700,000
Spending	\$1,559,500,000	\$1,307,800,000	\$2,867,300,000

New York City Economic Impacts of Qualified Productions in 2011

Economic Impact	Direct Impact	Indirect and Induced Impact	Total Impact
Employment	5,000	5,100	10,200
Income	\$883,400,000	\$665,500,000	\$1,549,000,000
Spending	\$1,435,800,000	\$1,015,300,000	\$2,451,200,000

Notes: New York City impacts are a subset of New York State impacts; All amounts are in 2011 dollars; Employment converted to FTE using conversion table published by MIG; Income consists of employee compensation, proprietor's income, and other property income.

Source: HR&A Advisors, Inc. Analysis; IMPLAN; New York State Governor's Office for Motion Picture and Television Development

ECONOMIC IMPACTS OF NON-QUALIFIED PRODUCTION ACTIVITY

HR&A's estimates of the impacts of non-qualified production utilize a similar methodology employed by Ernst and Young in their 2009 and 2010 studies. No data source tracks the amount of spending or employment by non-credit eligible productions (such as commercials, documentaries, talk shows, and reality programs). Yet, to the extent that employment associated with these types of productions has increased since the enhancement of the Credit in 2008, the non-qualified spending and employment must be considered to determine the full impact of the Credit. As noted previously, non-qualified productions are able to take advantage of the clustering effect of film and television production encouraged by the Credit.

HR&A estimates non-qualified production activity in New York State by examining employment data from the Bureau of Labor Statistics on employment in the film and video production industry over the period 2005, the first full year of the Credit's existence, to 2011, the last full year for which data is available. HR&A defined the film and television production industry to include the below five-digit NAICS (North American Industry Classification System) codes:

- NAICS 51211: "Motion picture and video production"
- NAICS 51212: "Motion picture and video distribution"

• NAICS 51219: "Post production and other motion picture and video industries"

HR&A excluded NAICS 51213: "Motion picture and video exhibition," because employment in this sector is more related to the consumption of film and video products than to their production. The New York State Comptroller only includes NAICS 51211 and 51219 in their definition of the industry. The MPAA's definition of the industry is based on prior SIC (Standard Industrial Classification) codes and includes the above three categories in addition to employment in several other NAICS categories.

HR&A traced New York film and video production employment (as defined above) as a share of United States employment for the same NAICS codes. Between 2005 and 2008, when the ten percent Credit was in place, New York's share of total U.S. employment grew at a rate of just 0.01 percent annually, from 15.94 percent in 2005 to 15.97 percent in 2008, reversing a sharp decline in share of employment earlier in the decade. It is assumed had the ten percent Credit remained in place, New York's share of U.S. employment would have continued to grow at this rate through 2011, resulting in a 15.99 percent share of US employment in 2011, and equivalent to only about 36,000 jobs. Instead, New York's share of U.S. employment grew at an average rate of 1.50 percent annually, resulting in approximately 46,100 New York film and video production jobs in 2011, about 10,100 more jobs than projected. It is assumed that this residual between actual New York State jobs and projected jobs based upon the 2005 to 2008 growth rate represents new employment attracted by the enhanced Credit.

The amount of direct film and video production employment owing to qualified production spending, estimated to be 1,905 jobs based upon IMPLAN modeling, does not fully account for this residual of nearly 10,100. The difference between the total residual and amount of employment explained by qualified film and television production spending is assumed to represent the amount of employment owing to growth in non-qualified film and television production in New York State. It is assumed that the share of non-qualified production jobs located in New York City is equal to the City's share of in-state spending by qualified productions, 92.1 percent. The analysis is demonstrated in **Figure A-3** below.

	2011
Actual Employment in New York State	46,112
Projected Employment in New York State	36,027
Residual Jobs in New York State	10,085
Qualified Production Employment in New York State	1,905
Non-Qualified Production Employment in New York State	8,180
Assumed New York City Share of Non-Qualified Production Employment	92.1%
Non-Qualified Production Employment in New York City	7,531

Figure A-3: Calculation of Employment in Non-Qualified Productions in 2011

Source: HR&A Advisors, Inc. Analysis; Bureau of Labor Statistics; IMPLAN; New York State Governor's Office for Motion Picture and Television Development

Non-qualified production employment in New York State was inputted into the IMPLAN modeling software to calculate the economic impacts of non-qualified production in New York State. Non-qualified production employment in New York City was inputted into the IMPLAN modeling software to calculate the economic impacts of non-qualified production in New York City. The estimated amounts of direct, indirect, and induced employment, economic spending, and personal income attributable to non-qualified productions in New York State and New York City in 2011 and are included in **Figure A-4**.

Economic Impact	Direct Impact	Indirect and Induced Impact	Total Impact
Employment	6,800	9,000	15,700
Income	\$1,408,800,000	\$1,095,700,000	\$2,504,500,000
Spending	\$2,279,900,000	\$1,762,500,000	\$4,042,400,000

New York City	Economic Impacts	of Non-Qualified	Productions in 2011
INCOLOUR CITY	ECONOMIC IMPACIS		

Economic Impact	Direct Impact	Indirect and Induced Impact	Total Impact
Employment	6,200	6,600	12,800
Income	\$1,377,400,000	\$943,800,000	\$2,321,200,000
Spending	\$2,181,400,000	\$1,442,600,000	\$3,624,000,000

Notes: New York City impacts are a subset of New York State impacts; All amounts are in 2011 dollars; Employment converted to FTE using conversion table published by MIG; Income consists of employee compensation, proprietor's income, and other property income.

Source: HR&A Advisors, Inc. Analysis; IMPLAN; New York State Governor's Office for Motion Picture and Television Development

ECONOMIC IMPACTS OF QUALIFIED AND NON-QUALIFIED PRODUCTION ACTIVITY

The economic impacts of qualified and non-qualified production combined comprise the total economic impacts of the New York State Film Production Tax Credit to New York State and New York City. Total employment, personal income, and economic spending impacts are calculated for New York State and New York City by summing the direct, indirect and induced amounts of employment, personal income, and economic spending of both qualified and non-qualified production in each area. These impacts are shown in **Figure A-5**.

Economic Impact	Direct Impact	Indirect and Induced Impact	Total Impact
Employment	12,600	16,300	28,900
Income	\$2,339,700,000	\$1,901,500,000	\$4,241,100,000
Spending	\$3,839,400,000	\$3,070,300,000	\$6,909,700,000

Figure A-5: Combined Economic Impacts of Qualified and Non-Qualified Productions in 2011

New York City Economic Impacts of Qualified and Non-Qualified Productions in 2011

Economic Impact	Direct Impact	Indirect and Induced Impact	Total Impact
Employment	11,300	11,700	23,000
Income	\$2,260,900,000	\$1,609,300,000	\$3,870,200,000
Spending	\$3,617,200,000	\$2,458,000,000	\$6,075,200,000

Notes: New York City impacts are a subset of New York State impacts; All amounts are in 2011 dollars; Employment converted to FTE using conversion table published by MIG; Income consists of employee compensation, proprietor's income, and other property income.

Source: HR&A Advisors, Inc. Analysis; IMPLAN; New York State Governor's Office for Motion Picture and Television Development

FISCAL IMPACTS OF QUALIFIED AND NON-QUALIFIED PRODUCTION ACTIVITY

HR&A estimates fiscal impacts to both New York State and New York City as part of this analysis. HR&A estimates fiscal impacts to New York State by estimating effective State tax rates for five categories of taxes and applying these rates to the level of personal income generated by the Credit in New York State, as estimated by the IMPLAN model. In order to estimate the effective State tax rate on income, HR&A relies on the 2009 Analysis of Personal Income Tax Returns, the latest edition of this report published by the New York State Department of Taxation and Finance.⁷ This publication indicates that in 2009, New York State personal income tax liability as a percent of New York Adjusted Gross Income was 5.45 percent, which is about 80 percent of the applicable marginal rate of 6.85 percent. For all other New York State personal income in 2011, reported by the Bureau of Economic Analysis, and New York State tax collections in 2011, reported by the U.S. Census Bureau's State and Local Government Finance Bureau. Ratios of tax collections to personal income were calculated for the following major tax revenue streams reported by the Census: corporate income tax, general sales tax, selective sales tax, and other taxes. The New York State ratios are referenced in **Figure A-6**.

⁷ The 2009 report is the most recent publication on Personal Income from the NYS Department of Taxation.

Figure	A-6:	New	York	State	Ταχ	Ratios	Applied	in	Fiscal	Impact	Analy	/sis
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Тах	Ratio to Personal Income
Individual Income Tax	5.45
Corporate Income Tax	0.40
Sales Tax	1.16
Selective Sales Tax	1.08
Other Taxes	0.54
Total	8.64

Note: New State Individual Income Tax ratio was calculated by adjusting applicable marginal tax rate by 80% to reflect the average effective income tax rate in New York State of 5.45. Marginal Rate is 6.85.

Source: HR&A Advisors, Inc. Analysis; IMPLAN; US Census Bureau; Independent Budget Office of the City of New York; New York State Department of Taxation and Finance

HR&A estimates fiscal impacts to New York City by estimating effective City tax rates for five categories of taxes and applying these rates to the level of personal income generated by the Credit in New York City as estimated through the IMPLAN model. In order to estimate the effective City tax rate on income, HR&A assumes the effective rate is 80 percent of the applicable marginal rate of 3.65 percent, which is proportionally equivalent to the discount applied to the State marginal rate in the calculation of the effective State rate described above. For all other New York City tax collected, effective State tax rates are calculated based upon the relationship between New York City personal income in 2010⁸, reported by the Bureau of Economic Analysis, and New York City tax collections in 2010, reported by the New York Independent Budget Office. Ratios of tax collections to personal income were calculated for the following major tax revenue streams reported by the Independent Budget Office: property tax, corporate income tax, sales tax, and other taxes. The New York City ratios are referenced in **Figure A-7**.

Тах	Ratio to Personal Income
Property Tax	3.85
Individual Income Tax	2.91
Corporate Income Tax	0.84
Sales Tax	1.19
Other Taxes	1.08
Total	9.86

Figure A-7: New York City Tax Ratios Applied in Fiscal Impact Analysis

Note: New York City Individual Income Tax ratio was calculated by adjusting applicable marginal tax rate by 80% to reflect the difference between the average effective income tax rate in New York State of 5.45 and the marginal rate in New York State of 6.85. Marginal Rate is 3.65 in New York City.

Source: HR&A Advisors, Inc. Analysis; IMPLAN; US Census Bureau; Independent Budget Office of the City of New York; New York State Department of Taxation and Finance

⁸ Personal income in 2011 for geographies below the state level is not yet available from the Bureau of Economic Analysis.

In order to calculate the 2011 fiscal impacts of the Credit in New York State and New York City, these effective tax rates are applied to the total personal income generated in each area by the Credit.

RETURN ON INVESTMENT (ROI)

HR&A calculates the return on investment (ROI) by comparing the total fiscal benefits generated by the Credit to both New York State and New York City against the present value of the Credits granted by the State. No film tax credits were distributed by New York City in 2011, meaning only the State incurred a cost in allocating Credits.

In order to calculate the present value of the Credits granted by the State, the Credit allocation associated with 2011 qualifying productions must be discounted to reflect the time value of money. This Credit allocation of \$348,411,483 will be paid out between 2012 and 2015. HR&A discounts the value of future payouts at an annual rate of 1.52 percent, which corresponds to the yield rate on the 2011 Series A New York State Tax-Exempt General Obligation Bonds that matures in 2015 (CUSIP 649791 DB3). When applying this discount rate, the present value of future Credit distributions is estimated to be about \$335 million. An ROI ratio above one indicates that the fiscal benefits of the Credit exceed the costs, while an ROI ratio below one indicates that the costs of the Credit exceed the fiscal benefits.

V. Additional Materials

NEW YORK STATE FILM PRODUCTION TAX CREDIT FORM C - DETAIL PAGE

FORM C - Detail Page								FILM			
									DATE		
		Form C, please see instructions Section 3.						NEWLYCHK STATE	CONTACT:		
	Project	t Qui			In NY		NON QU	ALIRED		OUTSIDENEW YORK	
CTS	Acots	CATEGORY TITLE	Qualified	Faoility NYS	Location	Other 0 NYS	in NYS	OUTSIDE NYS	Faolity	Loo./Oth. 1	TOTAL
			NYC	(outside NYC)	NYC	(butside N/C)				121212	
		CODE AS	P1	12	LI	4	23	XP	œ	a	
-00	_	STORY & RIGHTS WRITING	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
	_	PRODUCERS & STAFF	\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$0	\$0 \$0	\$0 \$0		
-00		DIRECTOR & STAFF	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
-00		TALENT & STAFF	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
-00		TRAVEL & LIVING (ATL)	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
000	_	FRINGE BENEFITS (ATL) TOTAL ABOVE-THE-LINE	\$0 \$0	\$0	\$0 \$0	\$0 \$0	50 \$0	\$0 \$0	\$0		
	_	TOTAL ADOVESTINE-CIRE		••	**	**	•••			•	
-00		PRODUCTION STAFF	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
-00		EXTRA TALENT	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
-00		CAMERA	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
-00		SET DESIGN	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
-00		SET CONSTRUCTION	\$0	\$0	\$0	\$0	\$0	\$0 \$0	\$0		
3-00 5-00	_	SPECIAL EFFECTS SET OPERATIONS	\$0 \$0	\$0	\$0 \$0	\$0	\$0	\$0	\$0 \$0		
7-00		ELECTRICAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	50	
900-6		SET DRESSING	\$0	\$0	\$0	\$0	\$0	\$0		- 0 - 50	
1-00		ACTION PROPS	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
3-00		PICTURE VEHICLES/ANIMALS	\$0	\$0	\$0	\$0	\$0	\$0			
5-00 9-00		VISUAL EFFECTS (PRODUCTION)	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
1-00		WARDROBE MAKEUP & HAIRDRESSING	\$0 \$0	\$0	\$0 \$0	\$0	\$0 \$0	\$0	\$0 \$0		
3-00		PRODUCTION SOUND	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
5-00		LOCATIONS	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
6-00	1	TRAVEL & LIVING (BTL)	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
7-00	_	VIDEO TAPE	\$0	\$0	\$0	\$0	\$0	\$0	50		
9-00	-	TRANSPORTATION	\$0	\$0	\$0	\$0	\$0	\$0 \$0	\$0 \$0		
3-00	_	PRODUCTION FILM & LAB TESTS	\$0 \$0	\$0	\$0 \$0	\$0	\$0 \$0	\$0	\$0	\$0 \$0	
5-00		FACILITY EXPENSES	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
6-00		LIVE AUDIENCE	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
7-00		SECOND UNIT	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
9-00	_	ADD'L PRINCIPAL PHOTOGRAPHY	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
3-00		FRINGES- SHOOTING PERICO TOTAL PRODUCTION	\$0 \$0	\$C \$0	\$0 \$0	\$0	\$0 \$0	\$0	\$0		
-			**		**					**	
5-00		EDITING & PROJECTION	\$0	\$0	\$0	\$0	\$0	\$0		\$0	_
7-00		MUSIC	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
9-00		SOUND (POST PRODUCTION)	\$0	\$0	\$0	\$0	\$0	\$0	\$0		_
3-00	-	VISUAL EFFECTS (POST PRODUCTION)	\$0 \$0	\$0	\$0 \$0	\$0	\$0 \$0	\$0	\$0 \$0		
5-00	_	TITLES, OPTICALS, INSERTS	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
9-00		FRINGES- POST PRODUCTION	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
	8	TOTAL POST PRODUCTION	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	_										
1-00		INSURANCE	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
3-00 5-00		ON SET PUBLICITY PRODUCT PLACEMENT	\$0 \$0	\$0	\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$0 \$0		
7-00		GENERAL EXPENSES	\$0	\$0	\$0	\$0	\$0	\$0	\$0	50	
8-00		AMORT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
9-00		FRINGES- OTHER	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
1-00	_	INSURANCE CLAIMS	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
5-00		COMPLETION BOND CONTINGENCY	\$0	\$0	\$0	\$0	\$0 \$0	\$0 \$0	\$0		
~~~		TOTAL OTHER	\$0 \$0	\$0	\$0 \$0	\$0		\$0	\$0		
_	-										
	TOTAL A	BOVE-THE-LINE	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	TOTAL P	OTAL PRODUCTION \$0		\$0	\$0	\$0	\$0	\$0	\$0	900 P 0 P 2 * <b>\$0</b>	
		OST PRODUCTION	\$0	\$0	\$0	\$0	\$0				
	GRAND T		\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0		\$0		
	GIVINO 1		40	÷0	40	40	10	40	\$0	\$0 L	

The Location / Other column includes costs for work incurred outside the stage facility, including crew & equipment costs for location days, post-production, lab, etc.

## **VI. General and Limiting Conditions**

- 1. Any person who relies on or otherwise uses this Study is required to have first read, understood and accepted the following disclosures, limitations and disclaimers, and will, by reason of such reliance or other use, be deemed to have read, understood and accepted the same.
- HR&A Advisors, Inc. (HR&A) has been engaged and compensated by the Motion Picture Association of America (MPAA) to prepare this Study. In preparing this Study, HR&A has used its independent professional judgment and skills in good faith, subject to the limitations, disclosures and disclaimers herein.
- 3. This Study is based on estimates, assumptions and other information developed by HR&A, other third party consultants, and New York State officials. Every reasonable effort has been made to ensure that the data contained in this Study are accurate as of the date of this Study; however, factors exist that are outside the control of HR&A and that may affect the estimates and/or projections noted herein.
- 4. HR&A reviewed the information and projections provided by third parties using its independent professional judgment and skills in good faith, but assumes no liability resulting from errors, omissions or any other inaccuracies with respect to the information provided by such third parties referenced in this Study.
- 5. HR&A also relied on data provided by or purchased from MIG Inc., the United States Bureau of Labor Statistics, the United States Census Bureau, the United States Bureau of Economic Analysis, the State of New York, and the New York Independent Budget Office in order to generate estimates of economic and fiscal impacts. HR&A assumes no liability resulting from errors, omissions or any other inaccuracies with respect to the information provided by these parties.
- 6. In addition to relying on data, information, projections and forecasts of others as referred to above, HR&A has included in this Study estimates and assumptions made by HR&A that HR&A believes are appropriate, but HR&A makes no representation that there will be no variances between actual outcomes and such estimates and assumptions.
- 7. No summary or abstract of this Study, and no excerpts from this Study, may be made for any purpose without HR&A's prior written consent.
- 8. No opinion is intended to be expressed and no responsibility is assumed for any matters that are legal in nature or require legal expertise or specialized knowledge beyond that of an economic development consultant.
- 9. This Study is qualified in its entirety by, and should be considered in light of these General and Limiting Conditions. By use of this Study each party that uses this Study agrees to be bound by all of the General and Limiting Conditions stated herein.