

Economic Impacts of the Massachusetts Film Tax Incentive Program

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Executive Summary

The Motion Picture Association of America (MPAA) commissioned HR&A Advisors, Inc. (“HR&A”) to conduct an economic impact analysis of the Massachusetts Film Tax Incentive Program (the “Incentive Program”). The Incentive Program, introduced in 2006 and modified to its current form in 2007, consists of three types of incentives: A 25% payroll credit applied to payroll subject to Massachusetts personal income tax withholding for individual incomes less than \$1 million, a 25% production expense credit applied to qualifying expenses in Massachusetts, and a sales and use tax exemption.

HR&A examines the economic impacts of production activity induced by the Incentive Program in 2011, and the one-time impacts of the currently underway construction of New England Studios, which will be the first Hollywood-style film studio facility in the Commonwealth. Ongoing economic impacts of productions incented by the Incentive Program, and the one-time economic impacts of the construction of New England Studios, are measured in terms of full-time equivalent employment, personal income, and spending generated in Massachusetts. HR&A also measures the exposure value to the Commonwealth of successful films that have prominently featured Massachusetts as a setting.

Key findings from the economic impact analysis include:

- In 2011, the Incentive Program supported **2,220 full-time equivalent jobs in Massachusetts** across all industries, generating **\$183.0 million in Massachusetts personal income** and **\$375.3 million in spending** (i.e. economic output) in the Commonwealth.
- Massachusetts awarded \$37.9 million in film tax credits to program applicants in 2011, meaning that **for every \$1 of film tax credits awarded, \$10 in spending was generated in the Commonwealth.**
- Upon its completion, the construction of New England Studios will have supported **440 full-time equivalent jobs** across all industries, generating **\$35.6 million in Massachusetts personal income** and **\$62.3 million in spending** (i.e. economic output) in the Commonwealth.
- Following a decline in the early 2000s, total **Massachusetts motion picture production employment increased 46.1 percent from 1,630 jobs in 2006 to 2,380 jobs in 2011.** Employment peaked in 2008 at 3,370 jobs, but subsequently declined in the aftermath of the Great Recession, and also likely due to the 2010 proposal to cap the Incentive Program. New studio infrastructure and the continuance of the Incentive Program in its current form positions Massachusetts to increase its motion picture production employment base going forward.
- Employment in the **motion picture production industry in Massachusetts has grown at a time when overall private-sector employment in the Commonwealth has declined.** While Massachusetts motion picture production employment grew 46.1 percent between 2006 and 2011, total private-sector employment in the Commonwealth declined by 0.5 percent.
- The Commonwealth’s share of motion picture production industry employment increased from **18th of the 50 states in 2006 to 11th in 2011.**
- After the introduction of the Incentive Program in 2006, **qualified production spending in Massachusetts surged to \$480.9 million in 2008.** Spending declined to \$71.6 million in 2010 following a proposal to cap the Incentive Program at \$50 million per year, but **increased significantly to \$176.0 million in 2011.**

- **Films that prominently feature locations in Massachusetts support** the Commonwealth's \$16.9 billion **tourism industry**. It is estimated that it **would cost about \$70.0 million** through national television advertising to achieve **the same number of audience impressions generated by exposures of identifiable Massachusetts locations** in a sample of **only five** recent productions (*The Fighter, Grown Ups, Moneyball, Ted, and The Town*).

I. Introduction

THE MASSACHUSETTS FILM TAX INCENTIVE PROGRAM

The Commonwealth of Massachusetts introduced the Massachusetts Film Tax Incentive Program (“Incentive Program”) in 2006 as a means to enhance the Commonwealth’s competitiveness as a place to produce motion pictures.¹ In July 2007, the program was modified to its current form, effective January 1, 2007. The Incentive Program, which has a sunset date of January 1, 2023, consists of three types of incentives: the payroll credit, the production expense credit, and the sales and use tax exemption.

- **The 25% payroll credit** applies to aggregate payroll subject to Massachusetts personal income tax withholding, and does not include the salaries of individual employees who make more than \$1 million.
- **The 25% production expense credit** applies to pre-production, production, and post-production expenses incurred in Massachusetts, and includes salaries of individual employees who make more than \$1 million.
- **The sales and use tax exemption** applies to production expenditures incurred in Massachusetts.

Feature-length films, video, and digital media projects, TV series and pilots, documentaries, and commercials are eligible for the payroll credit and sales and use tax exemption if they incur at least \$50,000 in qualifying Massachusetts costs² in a 12-month period. In addition, productions must incur more than 50% of total expenses in Massachusetts or shoot more than 50% of principal photography in Massachusetts to also qualify for the production expense credit.

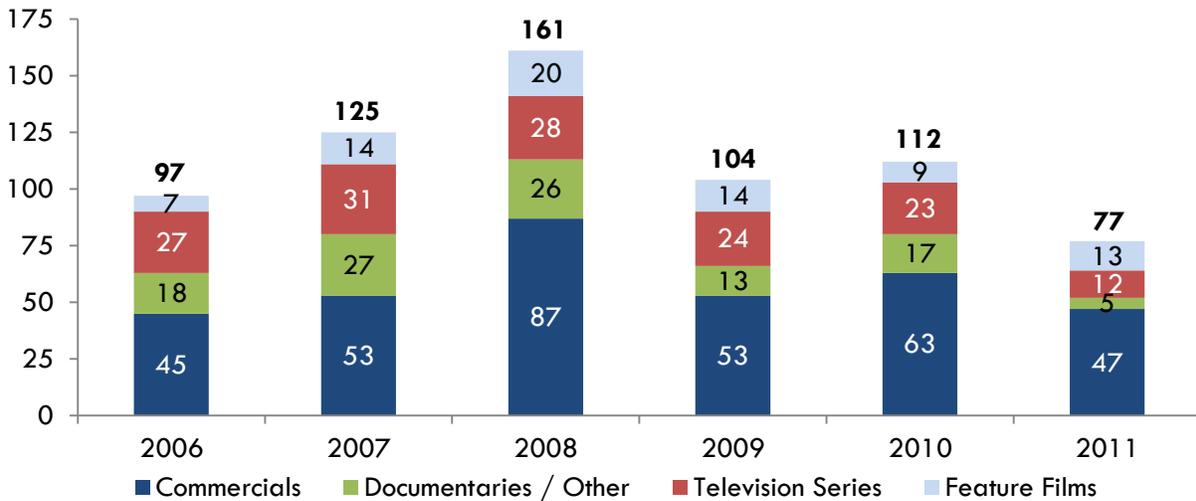
HISTORICAL USE OF THE MASSACHUSETTS FILM TAX INCENTIVE PROGRAM

Usage of the Incentive Program has varied considerably since its introduction in 2006. **Figure 1** presents the number of eligible productions that have participated in the Incentive Program each year since its inception. The total number of productions utilizing the Incentive Program peaked in 2008 with 161 productions, and subsequently decreased to its lowest level to-date in 2011, with 77 productions. Usage by production type has also varied. While TV productions and documentaries declined to their lowest levels in 2011, the number of films using the Incentive Program (13 productions) was relatively consistent with average usage in past years.

¹ This report defines a “motion picture” as filmed entertainment or information content, including movies, television programs, documentaries, and commercials.

² Most production expenses are considered qualifying costs. Among those that are not qualifying are payroll services, loan and interest fees, rights and script fees, insurance expenses, marketing and advertising costs, and travel to and from Massachusetts.

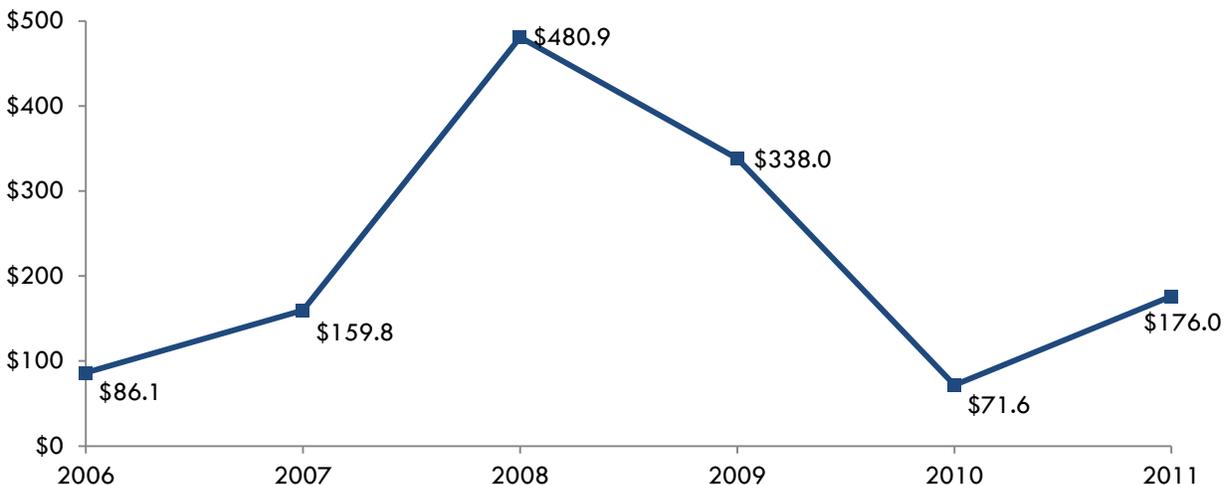
Figure 1: Number of Productions Participating in the Incentive Program by Type, 2006-2011



Source: Massachusetts Department of Revenue 2013 Film Industry Tax Incentives Report

The amount of qualified spending by film productions participating in the Incentive Program in the Commonwealth has also varied considerably between 2006 and 2011. As shown in **Figure 2**, qualified spending in Massachusetts surged to \$480.9 million in 2008. Following a proposal to cap the Incentive Program at \$50 million in 2010, spending by productions plummeted in 2010 to \$71.6 million. Although only 77 productions participated in the Incentive Program in 2011, spending increased substantially to \$176.0 million without the threat of a cap. This increase highlights the importance of major film productions in driving spending. With 13 feature films out of 77 productions (approximately 16 percent of total productions) more was spent in 2011 than 2006 and 2010 combined. In 2006 only seven percent of the productions were feature films and in 2010 only eight percent of the productions were feature films. Data provided by the Massachusetts Film Office, based upon production completion forms, indicates that applicant spending in 2012 will also be substantially higher than in 2010. A sample of spending data from just 12 productions indicates approximately \$181 million in qualified Massachusetts spending.

Figure 2: Credit-Eligible Spending (\$ Millions) by Incentive Program Participants, 2006-2011



Source: Massachusetts Department of Revenue 2013 Film Industry Tax Incentives Report

The value of credits generated has fluctuated in proportion to spending by Incentive Program applicants. In 2006, only about \$19 million in credits was generated by Incentive Program applicants.³ However, as shown in **Figure 3**, growth in spending led to a preliminary credit value of about \$120 million in 2008. Following the proposal to introduce a cap of \$50 million in credits in 2010, the amount of credits declined dramatically to \$18 million before rising again in 2011 to \$44 million. Over the life of the Incentive Program since 2006, \$326 million in tax credits have been generated by Incentive Program applicants. It is worth noting that although this figure reflects the year that tax credits are generated, there is a lag due to the DOR audit of the application and issuances of a film credit certificate.

Figure 3: Annual Tax Credits (\$ Millions) Generated by Incentive Program Participants, 2006-2011



Source: Massachusetts Department of Revenue 2013 Film Industry Tax Incentives Report

³ In 2006, there was a \$7 million cap per production and 20 percent payroll credit. The Incentive Program was revised in 2007.

II. The Massachusetts Motion Picture Production Industry

FOUNDATIONAL ASPECTS OF THE MASSACHUSETTS MOTION PICTURE PRODUCTION INDUSTRY

Local stakeholders identify a variety of attributes that contribute to Massachusetts's ability to attract and retain motion picture production. The Incentive Program has enabled the Commonwealth to fully capitalize on its suite of locational advantages.

- **Documentaries and Non-Fiction Television:** Massachusetts has a long history of excellence in non-fiction television programming and documentary filmmaking. WGBH, located in Boston, is a flagship station of PBS and produces well-known programming including *NOVA* and *Frontline*. The financial flexibility provided by the Incentive Program enabled WGBH to increase its research and development efforts.⁴ Adding to Massachusetts prowess in non-fiction programming is the significant concentration of leading minds at local colleges and universities. This deep local expertise, particularly in content related to science, technology, medicine, and engineering, is a key asset not easily replicated in many locations.
- **Variety of Geographies and Strong Culture:** Massachusetts and New England provide a variety of geographic settings in relatively close proximity, enhancing the Commonwealth's appeal to a diverse array of productions. Productions have taken advantage of this diversity in crafting distinctive ambiances, such as gritty urban neighborhoods (*Gone Baby Gone*), grand seaside estates (*Ghosts of Girlfriends Past*), brainy college campuses (*21*), and everyday suburban and rural locales (*Grown Ups*). Some, such as *Edge of Darkness*, take advantage of the full spectrum of locations Massachusetts has to offer, from Boston cityscapes to the bucolic Berkshires. Additionally, the distinctive culture and eventful history of Massachusetts make it the setting for many works of both fiction and non-fiction that are adaptable to film.
- **Talent Pipeline from Local Universities:** The Boston area is home to several of the nation's leading colleges and universities for aspiring performers and production employees, including Emerson College and Boston University. The Boston University College of Communication offers undergraduate and graduate courses of study in film and television production, screenwriting, while the School of Fine Arts offers a BFA in acting. Emerson College offers several courses of study in performing arts and visual and media arts, including acting, film, documentary production, studio television production, and post-production. Several graduates of these programs have gone on to become leaders in various aspects of motion picture production.

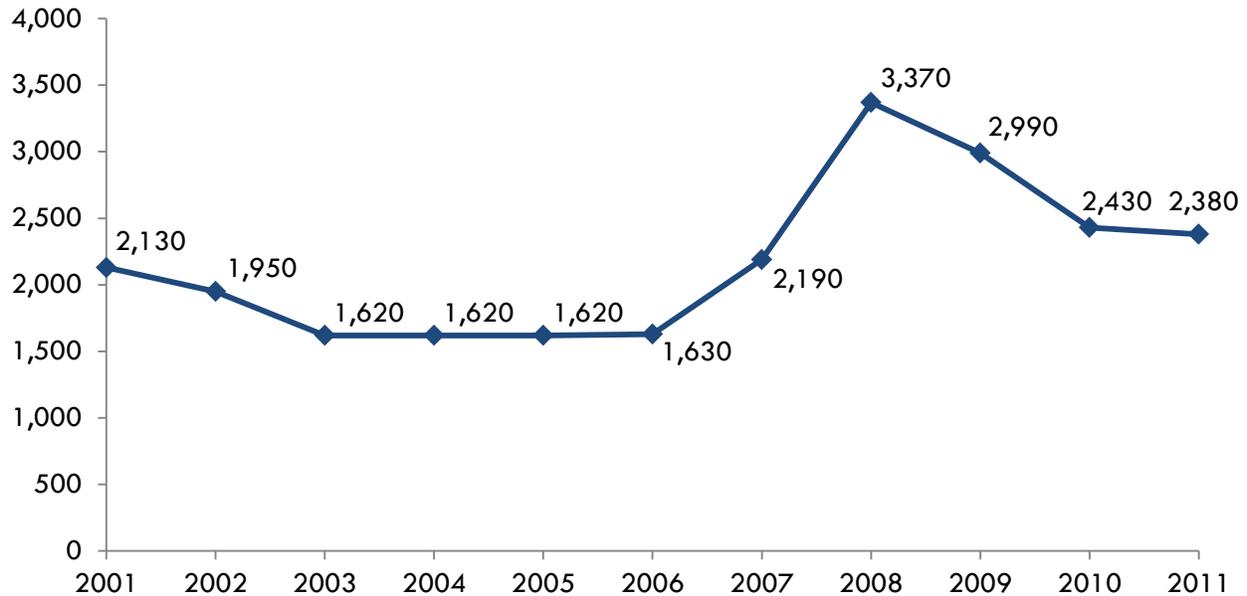
EMPLOYMENT IN THE MASSACHUSETTS MOTION PICTURE PRODUCTION INDUSTRY

The introduction of the Incentive Program has enabled the Commonwealth to fully capitalize on its existing advantages and increase its motion picture production employment. As indicated in **Figure 4**, after declining in the early 2000s to about 1,620 jobs in 2003, where employment levels remained for the next three years prior to the introduction of the Incentive Program, employment increased substantially following the introduction of the Incentive Program in 2006. Employment peaked at 3,370 in 2008, before falling due to the combined effects of the Great Recession and the 2010 proposal to cap the Incentive Program at \$50 million in incentives awarded. Despite this more recent decline, over the entire period from 2006 to 2011, motion picture production employment increased by 46 percent in the

⁴ *Film and Television Production in Massachusetts: Industry Overview and Analysis*, University of Massachusetts Boston, 2010.

Commonwealth. Over the same five-year period, national employment in the motion picture production industry increased by only 3 percent. Massachusetts ranked 18th of the 50 states in motion picture production employment in 2006, but by 2011 had jumped to 11th of the 50 states. With the provision of new studio infrastructure and the continuance of the Incentive Program in its current form, Massachusetts is well-positioned to increase its motion picture production employment base going forward.

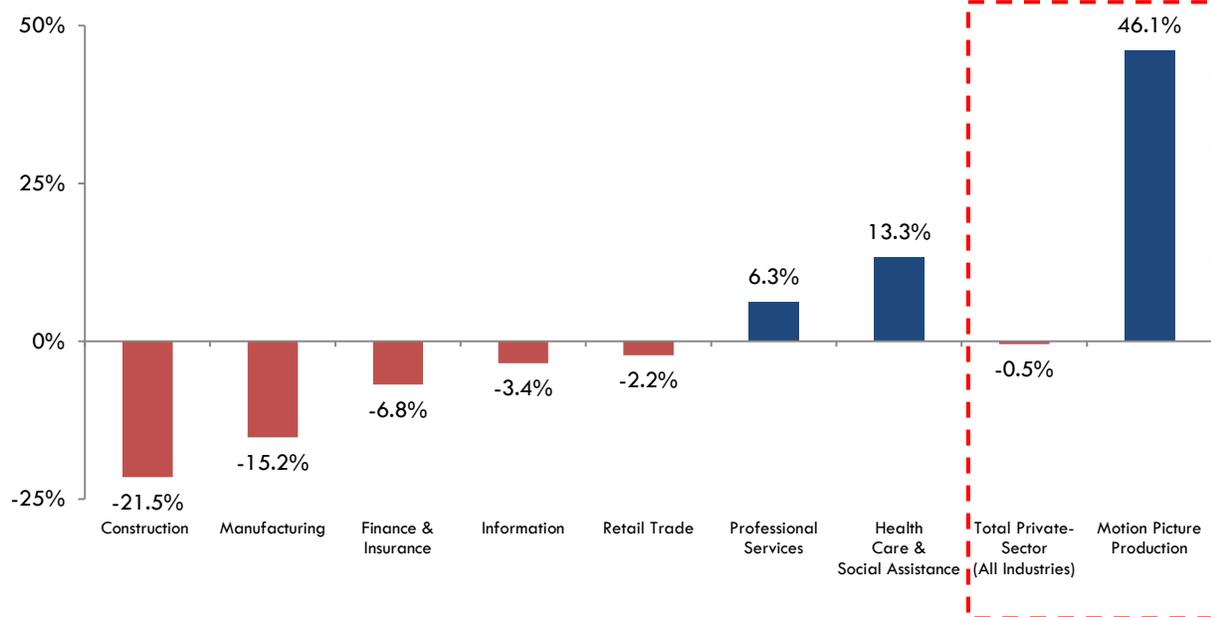
Figure 4: Massachusetts Employment in the Motion Picture Production Industry, 2001-2011



Source: Source: U.S. Bureau of Labor Statistics, HR&A Advisors, Inc. Analysis

The performance of the motion picture production industry is even more impressive when considered in the context of the performance of other private-sector industries in Massachusetts over the past five-years. As indicated in **Figure 5**, between 2006 and 2011 many industries in the Commonwealth experienced more modest growth rates, or actually declined. Employment in the construction, manufacturing, finance and insurance, information, and retail trade industries all declined. In contrast to the motion picture production industry, which grew by 46 percent, healthcare and social assistance grew by 13 percent, professional services by 6 percent, and overall total private-sector employment in Massachusetts declined by 0.5 percent over the period. During the Great Recession and its aftermath, motion picture production has proven an important source of jobs for the Commonwealth.

Figure 5: Employment Growth Rate in Massachusetts Motion Picture Production Industry Compared to Key Private-Sector Industries in Massachusetts, 2006-2011



Source: Source: U.S. Bureau of Labor Statistics, HR&A Advisors, Inc. Analysis

IMPACTS TO THE UNIONIZED WORKFORCE

Employment growth in the Massachusetts motion picture production industry is benefitting unionized workers active in IATSE and SAG-AFTRA. IATSE Local 481 represents motion picture technicians and craftspeople in Massachusetts and other New England states. IATSE's members specialize in several production-related disciplines, including set construction, set lighting, grip, special effects, and sound. According to IATSE Local 481, since the introduction of the Incentive Program in 2006, the union's membership has grown 140 percent from 2006 to 2013. Membership growth has been driven by several different factors, including:

- Many members had worked on motion picture productions before but had not yet made the commitment to formally join the union until they saw the industry growing as a result of the Incentive Program.
- Some of these members had worked in the industries like carpentry that were especially hard hit by the Great Recession and were able to offer transferrable skills to motion picture productions.
- Dozens of new members were Massachusetts natives with significant work experience in Los Angeles and New York who decided to return to the Commonwealth given the surge in production activity.

IATSE members are also benefiting from greater experience that is leading to higher job-quality. As local workers have gained experience in the industry, they are able to take on higher-skill positions, reducing the need for productions to import out-of-state workers to fill these positions. The increasing skills of Massachusetts-based production workers have contributed to the Commonwealth's appeal as a place to produce motion pictures. Training programs offered by IATSE have facilitated this skill-acquisition, as the organization holds 50 to 60 training programs per year to enhance the quality of the Massachusetts workforce in an increasingly competitive industry-context nationally.

Furthermore, according to data compiled by IATSE 481, film and television productions have purchased goods and services from businesses in over 200 cities and towns in the Commonwealth since 2008.

The Boston Local chapter of SAG-AFTRA represents both principal and background performers appearing in Massachusetts productions. Like the IASTSE Local 481, the Boston Local chapter of SAG-AFTRA has experienced a significant growth in membership since the introduction of the Incentive Program, with membership growing 56 percent since 2006. New members have come from different backgrounds, with a significant number of new members experienced in the local theater community. Some performers have returned to Massachusetts from Los Angeles and New York due to the growing motion picture production industry. Other budding performers never left after graduating from local colleges and universities such as Emerson, Boston University, and the Boston Conservatory and these new performers express interest in beginning their careers in Boston has markedly increased in recent years.

The increasing frequency of production activity in Massachusetts is providing SAG-AFTRA members the opportunity to build their careers and take on bigger roles. Recent productions, including *The Fighter* and *Company Men*, hired several local performers as principal actors. These principal roles pay higher wages than background roles, and also pay out residuals based upon the future success of the productions, adding a continuous stream of income to Massachusetts residents.

INFRASTRUCTURE INVESTMENTS

The Incentive Program is also beginning to catalyze infrastructure investments, ensuring a permanent motion picture production industry in the Commonwealth. Such investments assist in the creation of a robust, year-round film production industry cluster in Massachusetts. New England Studios, which will be the first full service, Hollywood-style production facility in Massachusetts, broke ground in June, 2012 on the grounds of the former Fort Devens military base. Located approximately 30 miles from Boston, the approximately 126,000 square foot facility will include four state-of-the-art sound stages along with office and ancillary space for productions, and is expected to receive its certificate of occupancy in 2013. A photo of the construction of the facility as of April, 2013 is shown in **Figure 6** below.

Figure 6: The Construction of New England Studios, April, 2013



Source: New England Studios

The operators of New England Studios indicate that without the Incentive Program, this investment would not have occurred, since the Incentive Program, as currently construed, provides them with greater certainty in the long-term health of the industry in Commonwealth. Several motion picture productions, including TV productions, have expressed interest in utilizing the space. Since TV series require ongoing access to high-quality studio space, Massachusetts has been relatively less successful in attracting these productions to-date. The creation of permanent studio space will make the Commonwealth more attractive to TV series, fostering greater employment stability as TV film production can offer multi-year employment if the series is successful.

New England Studios is being completed at cost of approximately \$35 million, and is 100 percent privately financed. As of March, 2013, \$15 million has already been incurred in the Commonwealth. HR&A's economic impact analysis of the project's construction is included in Section III of this report. The operators of New England Studios indicate that should this initial phase be successful, they will consider implementing an approximately \$80 million expansion.

III. Economic Impact Analysis

OVERVIEW OF ECONOMIC IMPACT ANALYSIS

Economic impact analysis is predicated on the concept of the “multiplier effect” of direct new activity in an area’s economy, such as new spending or new jobs owing to a policy change or investment. The multiplier effect reflects the fact that each dollar of direct spending or new job supports further spending and job creation in the area because businesses are interdependent and purchase goods and services from one another. For instance, in-state purchasing by a production attracted to Massachusetts by the Film Tax Incentive Program stimulates additional spending by supplier businesses that must purchase additional inputs to meet new demand, which stimulates additional spending by that firm’s suppliers, and so forth. Economic impact analysis measures this ripple effect of economic activity throughout an area’s economy.

HR&A’s analysis of the economic impacts generated by the Massachusetts Film Tax Incentive Program considers two sources of impacts: (1) new production activity owing to the existence of the Incentive Program and (2) the construction of the first phase of the New England Studios. For both sources, economic impacts are measured in terms of full-time equivalent employment, personal income, and spending generated in the Massachusetts economy.

HR&A relies on the 2011 IMPLAN model of the Massachusetts economy to calculate total economic impacts, including multiplier effects, of both sources described above. This model estimates the impacts of new spending or employment within specific sectors of the Commonwealth’s economy through multiplier relationships between sectors and household spending. The economic impacts generated can be disaggregated into direct, indirect, and induced effects.

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

ECONOMIC IMPACTS OF PRODUCTIONS

This analysis considers the economic impacts of new production activity generated by the Incentive Program in 2011, the most recent year for which data was available. HR&A defined 2011 production activity to be those productions included in the *Massachusetts Tax Credit Transparency Report* for calendar year 2011 (“2011 Transparency Report”). The economic impacts of new production activity owe to in-state spending by productions in two categories:

- Productions participating in the Incentive Program, and
- Productions that do not participate in the Incentive Program but have benefited from the clustering of motion picture production that it fosters.

Non-participating productions include productions that are not eligible for the Incentive Program for failing to meet spending criteria or being a class of production ineligible for the Credit (such as news and current events programming, talk shows, and fundraising and training programming). The agglomerative effects of clustered production include a more robust infrastructure of equipment and service providers a deeper pool of industry labor, including acting talent, production crews, and other auxiliary employees.

HR&A classified economic impacts into two categories: (1) impacts resulting from Incentive applicant productions included in the *2011 Transparency Report* and (2) impacts resulting from Non-Incentive applicant productions that either did not provide spending data to HR&A or were non-participating productions. To measure the economic impacts of Incentive applicant productions, HR&A collected data on both wage and non-wage spending from productions representing 93 percent (\$35.3 million of \$37.9 million) of the film tax credits awarded by Massachusetts to program applicants in 2011, as indicated by the *2011 Transparency Report*. This spending is distributed geographically throughout Massachusetts and in a range of spending categories from wages and fringe benefits to set lighting, private security, catering, lodging and location fees. No multiplier effects are attributed to individual employee salaries over \$1 million, as it is assumed the majority of these employees are non-residents, so multiplier effects associated with this spending are not realized within the Commonwealth. The methodology is detailed in the technical appendix.

To measure the economic impacts of the Non-Incentive applicant productions, defined as (1) productions participating in the Incentive Program that did not share spending data with HR&A (representing 7 percent of the film tax credits awarded by Massachusetts to program applicants in 2011) and (2) productions that did not apply or did not qualify for the Incentive Program, HR&A relied on data from the U.S. Bureau of Labor Statistics demonstrating the change in Massachusetts motion picture production employment before and after the introduction of the Incentive Program. The methodology is detailed in the technical appendix.

In 2011, HR&A estimates that the Massachusetts Film Tax Incentive Program supported the following economic impacts in Massachusetts:

- **Approximately 2,220 full-time equivalent jobs**, of which 1,260 supported the direct activities of productions, and 960 jobs were supported by indirect and induced economic activity.
- **Approximately \$183.0 million in Massachusetts personal income**, of which \$89.0 million accrued to persons and businesses directly supporting productions, and \$94.0 million accrued to persons and businesses involved with indirect and induced activities.
- **Approximately \$375.3 million in spending (i.e. economic output)**, of which \$217.7 million represents direct spending by productions, and \$157.6 million represents spending generated by indirect and induced economic activity. Massachusetts awarded \$37.9 million in film tax credits to program applicants in 2011, meaning that for every \$1 of film tax credits awarded, \$10 in spending was generated in the Commonwealth.

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

Figure 7: Economic Impacts of Production Induced by the Incentive Program in 2011

Economic Impact	Direct Impact	Indirect and Induced Impact	Total Impact	Multiplier
Employment	1,260	960	2,220	1.76
Income	\$89,000,000	\$94,000,000	\$183,000,000	2.06
Spending	\$217,700,000	\$157,600,000	\$375,300,000	1.72

Notes: All Amounts 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; Production Studios; U.S. Bureau of Labor Statistics; Massachusetts DOR, *A Report on the Massachusetts Film Industry Tax Incentives, 2013*

ECONOMIC IMPACTS OF NEW ENGLAND STUDIOS

This analysis considers the economic impacts of the construction of New England Studios, which represents a one-time infusion of economic activity in the Massachusetts economy. Economic impacts flow from approximately \$35 million of anticipated spending related to the design, permitting, and construction of the facility. The operators of the facility report that the construction effort, as of March 2013, has incurred approximately \$15 million in the Commonwealth and has involved 84 Massachusetts vendors located in 46 different cities and towns in the Commonwealth. These vendors collectively employ over 3,500 workers across their businesses. As stated previously, absent the Incentive Program the investment in New England Studios, and the correlating spin off effects it has generated, would not have occurred.

The construction of New England Studios is supporting the following economic impacts in Massachusetts:

- **Approximately 440 full-time equivalent jobs**, of which 270 supported the direct activities of productions, and 170 jobs were supported by indirect and induced economic activity.
- **Approximately \$35.6 million in Massachusetts personal income**, of which \$19.1 million accrued to persons and businesses directly supporting productions, and \$16.5 million accrued to persons and businesses involved with indirect and induced activities.
- **Approximately \$62.3 million in spending (i.e. economic output)**, of which \$34.4 million represents direct spending by productions, and \$27.9 million represents spending generated by indirect and induced economic activity.

Detailed results are shown in **Figure 8** below.

Figure 8: Economic Impacts of the Construction of New England Studios

Economic Impact	Direct Impact	Indirect and Induced Impact	Total Impact	Multiplier
Employment	270	170	440	1.63
Income	\$19,100,000	\$16,500,000	\$35,600,000	1.86
Spending	\$34,400,000	\$27,900,000	\$62,300,000	1.81

Notes: 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 England Studios

IV. Tourism in Massachusetts and the Value of Exposure on Film

MAJOR MOTION PICTURES FILMED IN MASSACHUSETTS

Since the introduction of the Incentive Program, motion pictures filmed in the Commonwealth include several high-profile feature length films that prominently feature local settings. Such films contribute to tourism, the third largest industry in the Commonwealth,⁵ by promoting Massachusetts to a broad global audience. **Figure 9** identifies a sample of these films, indicating their worldwide box office gross and Academy Award Performance.

Figure 9: Major Motion Pictures Filmed in Massachusetts Since 2006

Motion Picture	Release Year	Domestic Gross (\$ Millions)	Academy Awards Performance
<i>Here Comes the Boom</i>	2012	\$45	
<i>Ted</i>	2012	\$219	Oscar Nominee
<i>Moneyball</i>	2011	\$77	Oscar Nominee
<i>Zookeeper</i>	2011	\$80	
<i>Edge of Darkness</i>	2010	\$43	
<i>The Fighter</i>	2010	\$94	Oscar Winner - Supporting Actress; Supporting Actor
<i>Grown Ups</i>	2010	\$162	
<i>Shutter Island</i>	2010	\$128	
<i>The Social Network</i>	2010	\$97	Oscar Winner - Adapted Screenplay; Original Score; Film Editing
<i>The Town</i>	2010	\$92	Oscar Nominee
<i>Ghosts of Girlfriends Past</i>	2009	\$55	
<i>Knowing</i>	2009	\$80	
<i>The Proposal</i>	2009	\$164	
<i>21</i>	2008	\$81	
<i>Gone Baby Gone</i>	2008	\$20	Oscar Nominee
<i>The Game Plan</i>	2007	\$91	

Source: Massachusetts Film Office; Box Office Mojo

Given the significant exposure of Massachusetts in recent high-profile movies like *Ted* (2012), *The Fighter* (2010), and *The Town* (2010); it is reasonable to assume that a portion of the \$16.9 billion Massachusetts tourism industry⁶ can be attributed to film-induced tourism. Past studies have found that major motion pictures are influential in drawing tourists to the locations where they are shot. For instance, in a survey of visitors to New Zealand, 8.6 percent of visitors reported that the *Lord of the Rings Trilogy* was a factor in their decision to visit, while 89 percent of visitors were at least aware the films were shot in New Zealand.⁷ Following the release of *Robin Hood* (2010), visitation to Sherwood Forest in England increased 5.5% annually.⁸ In Massachusetts, several locations have become tourist attractions after being prominently featured on film. Cheers Beacon Hill serves as a tourist draw for fans of the long-running television series *Cheers*, and the Boston TV and Movie Sites Tour takes patrons to a variety of locations depicted in popular

⁵ Speech by Governor Deval Patrick, Tourism Conference, March 23, 2011

⁶ *The Economic Impact of Travel on Massachusetts Counties 2011*, U.S. Travel Association, 2012

⁷ Glen W. Croy, Monash University, *The Lord of the Rings, New Zealand, and Tourism: Image Building with Film*, 2004

⁸ Cloudberry Communications, *The Millennium Report: Economic impact and exposure value of the Stockholm Region in the Swedish Millennium Feature Films*, 2011

films and television shows shot in Boston. Understanding the number of tourists induced to visit Massachusetts by its depiction on film is an avenue of research.

THE EXPOSURE VALUE OF MASSACHUSETTS ON FILM

Exposure analysis provides a methodology for estimating at a high-level the marketing value of a film based on what it would have cost a tourism agency to reach an equivalent audience using conventional advertising channels like TV, the internet, or the theatre. Using this methodology, a study of the exposure value of the Millennium Trilogy to the Stockholm Region in Sweden estimated its value at approximately \$150 million.⁹

As demonstrated in the Millennium Trilogy study, exposure analysis can be a proxy for determining the value of film and its potential influence on tourism. However, it should be noted that exposure analysis involves several assumptions and its outputs must be considered within the context of these assumptions. The exposure analysis in this study does not differentiate between the length of time a specific identifiable image appears, the quality of the image (e.g. if it has a pleasant), the identifiable location's connection to the film's plot (e.g. if the location is directly related to the storyline and thus easier for the audience to remember). In addition, the analysis does consider the implied value if the same image is repeated in the film.

There have been 77 feature films shot in Massachusetts since the inception of the Incentive Program depicting a variety of towns, cities, and attractions in the Commonwealth. HR&A conducted an analysis of only five feature films set and shot in Massachusetts out of these 77 films. The five analyzed films include *The Fighter*, *Grown Ups*, *Moneyball*, *Ted*, and *The Town*. For each of these films, we noted the number of distinctive exposures of Massachusetts locations, defined as discrete scenes or shots where a clearly identifiable Massachusetts location is present, regardless of the length of the exposure. The number of exposures ranged from two in *Moneyball*, which was filmed primarily outside Massachusetts, to 29 in *The Town*, which extensively features Boston locales. For these five films, the MPAA provided estimates of attendance based upon the gross box office earned and the national average ticket price in the film's year of release. A more detailed description of the methodology is presented in the technical appendix.

Based upon this data, HR&A was able to estimate the aggregate number of audience impressions for the five films. The number of impressions is estimated to be over 4.6 billion and presented in **Figure 10**.

Figure 10: Audience Impressions Generated by Select Films

Film	Count of Massachusetts Exposures	Theater Attendance	Audience Impressions
<i>The Fighter</i>	8	11,865,000	94,920,000
<i>Grown Ups</i>	3	20,532,000	61,596,000
<i>Moneyball</i>	2	9,534,000	19,068,000
<i>Ted</i>	15	27,489,000	412,335,000
<i>The Town</i>	29	11,684,000	338,836,000
Total	57	81,104,000	4,622,928,000

Source: HR&A Advisors, Inc. Analysis; MPAA

⁹ Ibid.

In order to make the same number of audience impressions through national television advertising, HR&A considers, for the top 20 highest-rated television shows during the 2011-2012 season, the average price for a 30-second TV spot and average audience size. The analysis assumes that a 30-second commercial is an audience impression equivalent to one Massachusetts exposure in the five analyzed films, regardless of length of exposure. These shows averaged 15.2 million weekly viewers and a \$236,000 30-second commercial cost, for an average cost of \$0.015 per audience impression. Applying the average cost per audience impression for a 30-second commercial to the 4.6 billion audience impressions generated by the five analyzed films produces an exposure value of \$70 million. In other words, it would have cost about \$70 million to reach an equivalent-sized audience through 30-second commercials promoting Massachusetts aired during the highest-rated television shows. This methodology is detailed further in the technical appendix.

V. Technical Appendix

OVERVIEW OF ECONOMIC IMPACT MODELING PROCESS

As noted in Section III of the report, HR&A utilized the 2011 IMPLAN economic model of the Massachusetts economy in conducting this analysis. For each dollar of spending in the Massachusetts economy, IMPLAN traces the pattern of commodity purchases and sales between 440 industries within the State. HR&A adjusted the direct, indirect, and induced employment impacts estimated by IMPLAN, which include full-time and part-time workers, to reflect full-time equivalent employment using adjustment factors published by MIG Inc., the makers of IMPLAN.

DATA COLLECTION

HR&A's analysis of economic impacts owing to productions applying for the Incentive Program is based on spending data provided by production studios that applied for the Incentive Program in 2011. These productions were included in the *2011 Transparency Report* published by the Massachusetts Department of Revenue. In exchange for a non-disclosure agreement, production companies participating in the data collection process provided HR&A with spending data submitted to the Massachusetts Department of Revenue as required by the credit application process. The data collected indicate the amount of spending undertaken by productions including both payroll and non-payroll expenses.

ECONOMIC IMPACTS OF INCENTIVE APPLICANT PRODUCTION ACTIVITY

The data procured from production studios allowed HR&A to disaggregate spending on individual salaries from other spending in the Commonwealth. **Figure 11** presents a summary of this spending data, including the \$141 million in spending that constitutes the basis for the analysis. For spending on individual salaries over \$1 million, totaling \$33 million, only direct economic impacts were considered as part of this analysis since it is assumed that the majority of these employees are non-residents and multiplier effects of their spending are not realized within the Commonwealth. For the remaining \$107.9 million, HR&A considered direct, indirect and induced impacts as the spending and its correlating impacts were felt within Massachusetts.

Figure 11: Spending by Productions Applying for the Massachusetts Film Tax Incentive

Type	Amount	Use in Analysis
Qualifying Production Costs Everywhere	\$203,272,000	
<u>Qualifying Production Costs Outside MA</u>	<u>\$62,257,000</u>	
Qualifying Production Costs in MA	\$141,015,000	Basis for Economic Impacts in MA
Spending in MA on Individual Salaries over \$1 Million	\$33,126,000	Only Direct Impacts Included
Other Qualified Wage Spending in MA	\$58,046,000	Direct, Indirect, and Induced Impacts Included
Other Qualified Non-Wage Spending in MA	\$49,843,000	Direct, Indirect, and Induced Impacts Included

Source: HR&A Advisors, Inc. Analysis; Production Studios

Since no further detail was available on the nature of non-payroll spending in Massachusetts, the non-wage portion of all other qualified spending in Massachusetts (\$49,843,000) was disaggregated into appropriate budget categories based on the spending breakdown of Incentive applicants presented in "Table 1 – Production Spending by State of Residence of Location of Vendor" of the *Massachusetts Department of Revenue 2013 Film Industry Tax Incentives Report ("DOR Report")*. This table breaks down non-wage spending into 22 categories. Although the *DOR Report* reflects production spending that took place in 2011, rather than production spending associated with productions applying for the Incentive Program in 2011 (as this report does), it provides the best available proxy for a detailed budget

breakdown and it is likely the distribution across categories does not vary greatly from year to year. HR&A applied the same distribution of spending by category in the *DOR Report* to the non-wage spending analyzed by this analysis in order to categorize non-wage spending into appropriate categories for economic modeling through IMPLAN. The distribution of spending by category is presented in **Figure 12**.

Figure 12: Distribution of Non-Wage Spending by Productions Applying for the Incentive Program

Category of Spending	Proportion of Credit-Eligible Non-Wage Spending
Production and Prof. Services	13.7%
Special Effects	4.7%
Fringe Benefits and Taxes	26.1%
Cameras / Film	5.4%
Location Fees	6.7%
Hotel / Motel	8.5%
Set Construction	6.7%
Computer / Telecom Equip.	0.7%
Miscellaneous / Other	0.7%
Producer / Director Fees	1.1%
Food / Restaurant / Catering	3.4%
Costumers / Clothing / Props	4.1%
Transportation / Moving Services	1.5%
Office Rent / Supply / Supp.	0.7%
Mobile Dressing Rooms	2.3%
Parking, Fuel, Auto Repair	2.0%
Local Travel / Car Rental	1.0%
Private Security / Police Details	2.1%
Set Lighting / Electrical	4.7%
Other Lodging	1.1%
Extras	1.1%
Cleaning and Repair	2.0%
Total	100.0%

Source: "Table 1 – Production Spending by State of Residence of Location of Vendor,"
Massachusetts Department of Revenue 2013 Film Industry Tax Incentives Report

Spending on individual salaries over \$1 million (\$33,126,000), other payroll spending (\$58,046,000) and non-wage production expenses by the above-described categories (\$49,843,000) were inputted into the IMPLAN modeling software using appropriate categories to calculate the economic impact of Incentive Program applicants in Massachusetts. The estimates of direct, indirect, and induced full-time equivalent employment, personal income, and spending attributable to these productions is included in **Figure 13**.

Figure 13: Economic Impacts of Spending by Incentive Program Applicants

Economic Impact	Direct Impact	Indirect and Induced Impact	Total Impact	Multiplier
Employment	820	570	1,400	1.71
Income	\$58,600,000	\$55,800,000	\$114,400,000	1.95
Spending	\$139,900,000	\$93,200,000	\$233,200,000	1.67

Notes: All Amounts 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; Production Studios; U.S. Bureau of Labor Statistics; Massachusetts DOR, *A Report on the Massachusetts Film Industry Tax Incentives, 2013*

ECONOMIC IMPACTS OF NON-INCENTIVE APPLICANT PRODUCTION ACTIVITY

As noted previously, productions that do not apply for the Incentive Program, including those that are ineligible for applying to the Incentive Program,¹⁰ are able to take advantage of the clustering effect of motion picture production engendered by the Incentive Program. To the extent that employment associated with these productions has increased since the Incentive Program's enactment in 2006, the spending and employment generated must be considered for a full reckoning of the impact of the Incentive Program.

By examining data on motion picture production employment in Massachusetts from the Bureau of Labor Statistics HR&A estimates production activity owing to (1) productions that did not apply for the Film Incentive Program, and (2) productions that applied for the Incentive Program in 2011 but did not share spending data.

As part of our methodology, HR&A defined the motion picture production industry to include the following 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 does not include employment in NAICS 51213: "Motion picture and video exhibition" because this sector is more related to the consumption of film than the production of film. The MPAA employs a slightly different definition of motion picture production that 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 motion picture production employment in Massachusetts in both raw numbers and as a percentage of United States employment between 2001 and 2011. This analysis is shown in **Figure 14** below. Between 2001 and 2006, Massachusetts employment in the motion picture industry fell as a share of U.S. motion picture employment from 1.03 percent to 0.75 percent, a rate of -0.06 percent annually. Had this decline continued, which is likely given the proliferation of film incentive programs in other states across the nation, by 2011 Massachusetts would have only constituted 0.46% of national employment in the industry, equivalent to 1,020 jobs. Instead, as a result of the Incentive Program, employment in the motion picture production industry grew to 2,380 jobs by 2011.¹¹

¹⁰ Ineligible productions include those that incur less \$50,000 in qualified production costs in Massachusetts or are categorically ineligible such as news and current events programming, talk shows, and fundraising and training programming.

¹¹ Massachusetts motion picture production jobs reached as high as 3,370 (1.46 percent of U.S. industry employment) in 2008, before falling between 2008 and 2011 due to the Great Recession and a 2010 proposal to cap the Incentive Program.

Figure 14: Motion Picture Production Employment, 2001-2011

Year	Actual MA Motion Picture Production Employment	U.S. Motion Picture Production Employment	MA Share of U.S. Motion Picture Production Employment	Projected MA Share of U.S. Motion Picture Production Employment Based on 2001-2006 Trend*
2001	2,130	205,780	1.03%	1.03%
2002	1,950	218,950	0.89%	0.89%
2003	1,620	206,840	0.78%	0.78%
2004	1,620	222,500	0.73%	0.73%
2005	1,620	218,510	0.74%	0.74%
2006	1,630	218,620	0.75%	0.75%
2007	2,190	221,390	0.99%	0.69%
2008	3,370	231,250	1.46%	0.63%
2009	2,990	211,190	1.42%	0.57%
2010	2,430	223,480	1.09%	0.52%
2011	2,380	225,260	1.06%	0.46%

Note: * 2006-2011 Projection assumes that Massachusetts would have continued to decline as a percentage of national industry employment at a rate of -0.06% annually, as it did from 2001- 2006.

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

The 2,380 motion picture production jobs that existed in Massachusetts in 2011 are approximately 1,350 more jobs than the projected amount. This residual amount of jobs between actual Massachusetts jobs in 2011 and projected jobs based upon the 2001-2006 trend represents new employment attracted by the Incentive Program. The amount of direct employment in the Massachusetts motion picture production industry owing to productions applying for the Incentive Program, estimated to be 825 jobs based upon IMPLAN modeling, does not fully account for this residual. The difference between the total residual amount of 1,350 and the amount of employment explained by productions applying for the Incentive Program that provided spending data (825) is approximately 525 jobs. It is assumed these 525 jobs represent the amount of employment owing to growth in non-Incentive Program applicants and Incentive Program applicants that did not provide spending data. The analysis is demonstrated in **Figure 15** below.

Figure 15: Calculation of 2011 Motion Picture Production Employment in Non-Applicant Productions

	2011
Actual Employment in Massachusetts	2,380
Projected Employment in Massachusetts*	(1,030)
Residual Jobs in Massachusetts	1,350
Incentive Applicant Employment in Massachusetts	825
Non-Incentive Applicant Employment in Massachusetts	525

Notes: *Assumes that Massachusetts would have continued to decline as a percentage of national industry employment at a rate of -0.06% annually, as it did from 2001- 2006; Employment reflects both full-time and part-time jobs.

Source: HR&A Advisors, Inc. Analysis; Bureau of Labor Statistics; IMPLAN; Production Studios

Employment in non-Incentive Program applicants and applicants that did not provide spending data was inputted into the IMPLAN modeling software using appropriate categories to calculate their economic

impacts in Massachusetts. The estimates of direct, indirect, and induced full-time equivalent employment, personal income, and spending attributable to these productions is included in **Figure 16**.

Figure 16: Economic Impacts of Spending by Non-Incentive Program Applicants

Economic Impact	Direct Impact	Indirect and Induced Impact	Total Impact	Multiplier
Employment	430	390	820	1.91
Income	\$30,400,000	\$38,200,000	\$68,600,000	2.26
Spending	\$77,800,000	\$64,400,000	\$142,200,000	1.83

Notes: All amounts 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; Production Studios; U.S. Bureau of Labor Statistics

ECONOMIC IMPACTS OF NEW ENGLAND STUDIOS

To calculate the economic impacts of the construction of New England Studios, an approximately \$35 million project, HR&A relied on data provided by the facility's operating team. Expenditures made by New England Studios during the planning and construction phases of the project, including design, permitting, and capital and labor costs throughout construction, represent the direct impact to the Massachusetts economy. As this infrastructure investment would not have occurred absent the existence of the Incentive Program, the economic impacts it generates are logically attributed to the Incentive Program. Since land acquisition costs represent a transfer rather than new economic activity, they are not included in the analysis. The present analysis focuses on the one-time economic impacts of the facility's construction and does not attempt to gauge future economic impacts of its operation. Once the facility is completed and operational, another economic impact analysis should be completed, to determine the economic impacts of the facility's ongoing operations as it will provide production space that attracts additional permanent production jobs to Massachusetts. In addition to New England Studios, other film production studios are in planning stages. As these projects come to fruition, the impacts of their construction and operations could contribute to additional economic activity generated by the Incentive Program.

Spending by New England Studios was inputted into the IMPLAN modeling software using appropriate categories to calculate the project's economic impacts in Massachusetts. The estimates of direct, indirect, and induced full-time equivalent employment, personal income, and spending attributable to New England Studios in **Figure 17**.

Figure 17: Economic Impacts of the Construction of New England Studios

Economic Impact	Direct Impact	Indirect and Induced Impact	Total Impact	Multiplier
Employment	270	170	440	1.63
Income	\$19,100,000	\$16,500,000	\$35,600,000	1.86
Spending	\$34,400,000	\$27,900,000	\$62,300,000	1.81

Notes: 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 England Studios

FILM EXPOSURE VALUE ANALYSIS

HR&A’s methodology in calculating the exposure value of Massachusetts exposures on film is similar to the methodology employed by Cloudberry Communications in its study of the economic impact of the Millennium Trilogy on the Stockholm Region in Sweden. As mentioned previously, the purpose of HR&A’s analysis is to quantify at a high-level approximately how much it would cost to achieve an equivalent number of audience impressions as the number achieved through theatrical viewing of five feature films recently shot in Massachusetts: *The Fighter*, *Grown Ups*, *Moneyball*, *Ted*, and *The Town*. Alternative methodologies could be employed and may yield different results.

First, HR&A noted the number of exposures, defined as discrete scenes or shots where a clearly identifiable Massachusetts location is present. Individual scenes or shots depicting the exterior of a residence were not included unless there was sufficient surrounding context to ground the scene in a recognizable Massachusetts location. A summary of the number and characteristics of exposures for each film is located in **Figure 18**.

Figure 18: Massachusetts Film Exposures

Film	Count of Massachusetts Exposures	Exposures
<i>The Fighter</i>	8	Downtown Lowell (multiple); Ramalho's West End Gym (multiple); Lowell Mills; Downtown Lexington
<i>Grown Ups</i>	3	Southboro Common; Woodman's of Essex; Water Wizz
<i>Moneyball</i>	2	Fenway Park Exterior; Fenway Park Interior
<i>Ted</i>	15	Public Gardens (multiple); Boston Skyline (multiple); New England Aquarium; Fenway Park; Hatch Shell; Charles Street; Mass Ave.; Somerville Theatre; Zakim Bridge; Union United Methodist Church; Gaslight Brasserie
<i>The Town</i>	29	Bunker Hill Monument and Monument Square (multiple); Aerial of Charlestown (multiple); Boston Skyline (multiple); Fenway Park (multiple); Harvard Square (multiple); Zakim Bridge (multiple); North End (multiple); Phipps Street Burying Ground

Source: HR&A Advisors, Inc. Analysis

In order to quantify the number of audience impressions generated by these exposures, the MPAA provided data on the total box office and estimated theater attendance based on the national average ticket price in the film’s year of release. HR&A multiplied the number of Massachusetts exposures by the theater attendance in order to quantify the number of audience impressions. **Figure 19** presents the results of this analysis, indicating an aggregate total of over 4.6 billion audience impressions generated.

Figure 19: Audience Impressions Generated by Select Films

Film	Count of Massachusetts Exposures	Domestic Box Office	Theater Attendance	Audience Impressions
<i>The Fighter</i>	8	\$93,617,000	11,865,000	94,920,000
<i>Grown Ups</i>	3	\$162,001,000	20,532,000	61,596,000
<i>Moneyball</i>	2	\$75,605,000	9,534,000	19,068,000
<i>Ted</i>	15	\$218,815,000	27,489,000	412,335,000
<u><i>The Town</i></u>	<u>29</u>	<u>\$92,186,000</u>	<u>11,684,000</u>	<u>338,836,000</u>
Total	57	\$642,224,000	81,104,000	4,622,928,000

Source: HR&A Advisors, Inc. Analysis; MPAA

In order to estimate the cost of achieving an equivalent number of impressions through TV advertising, HR&A calculated the average cost per impression made via advertising during the top 20 highest-rated primetime TV shows during the 2011-2012 season. As shown in **Figure 20** below, based upon average viewership of 15.2 million and an average commercial cost of \$236,000, HR&A calculates the average cost per impression to be \$0.015, or 1.5 cents per impression.

Figure 20: Cost of Impression for 30-Second Primetime TV Commercial

Series	Average Viewership	Average Commercial Cost	Cost per Impression
<i>Sunday Night Football</i>	20,714,000	\$512,367	\$0.025
<i>American Idol</i>	19,811,000	\$502,900	\$0.025
<i>NCIS</i>	19,491,000	\$154,646	\$0.008
<i>American Idol Results</i>	18,332,000	\$468,100	\$0.026
<i>Dancing with the Stars</i>	18,238,000	\$233,482	\$0.013
<i>Dancing with the Stars Results</i>	16,083,000	\$216,703	\$0.013
<i>NCIS: Los Angeles</i>	16,011,000	\$133,204	\$0.008
<i>The Big Bang Theory</i>	15,820,000	\$198,348	\$0.013
<i>Voice</i>	15,767,000	\$206,500	\$0.013
<i>Two and a Half Men</i>	14,639,000	\$252,418	\$0.017
<i>The Mentalist</i>	14,570,000	\$154,781	\$0.011
<i>Person of Interest</i>	14,337,000	\$174,574	\$0.012
<i>Criminal Minds</i>	13,196,000	\$137,347	\$0.010
<i>60 Minutes</i>	13,029,000	\$122,075	\$0.009
<i>Modern Family</i>	12,930,000	\$249,388	\$0.019
<i>Survivor</i>	12,770,000	\$144,478	\$0.011
<i>X-Factor</i>	12,665,000	\$320,669	\$0.025
<i>X-Factor Results</i>	12,571,000	\$283,034	\$0.023
<i>CSI</i>	12,490,000	\$135,350	\$0.011
<u><i>Castle</i></u>	<u>12,181,000</u>	<u>\$121,914</u>	<u>\$0.010</u>
Average	15,282,250	\$236,114	\$0.015

Source: HR&A Advisors, Inc. Analysis; Advertising Age; The Nielsen Company

The number of audience impressions (4.6 billion) generated by the five analyzed films multiplied by the cost per impression of \$0.015 yields an exposure value of \$70 million. This exposure value is what it would cost to generate the equivalent number of audience impressions through national television advertising.

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.
2. 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 based upon data provided by other parties, including individual production companies and New England Studios. 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, individual production companies, New England Studios, and the Massachusetts Department of Revenue in order to generate estimates of economic 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.