

North Carolina Department of Commerce

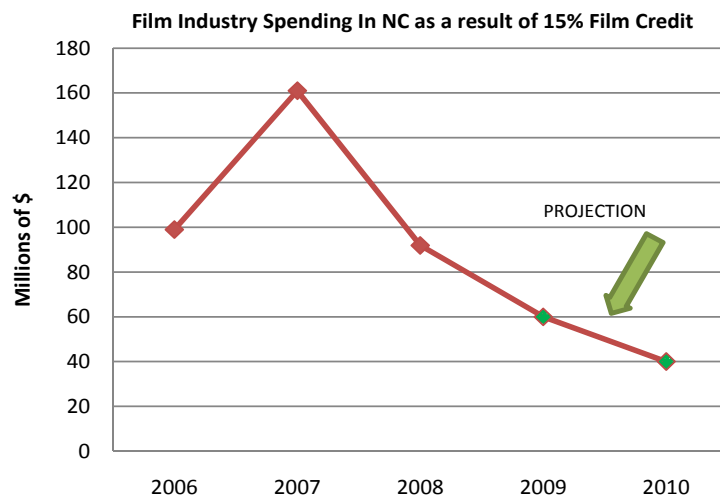
North Carolina Film Office • 919.733.9900

NORTH CAROLINA HAS A VIBRANT FILM INDUSTRY

- Over 2500 people are employed in the industry in North Carolina
- Private infrastructure investment: Studios, Lighting Facilities, Equipment Rental, Lumber, Hotels, Restaurants, etc.
- In 2007, students obtained a total of 5,711 degrees from the 41 film-related degree programs at North Carolina's universities and community colleges statewide.
- To date, North Carolina's 15% film production tax credits have been used by companies in 34 film projects in 28 counties. These productions have spent \$162.8 million in North Carolina and have employed 16,271 people. These credits have cost the state \$24.4 million; the return on investment to the state and local governments has been \$1.30 for every \$1 spent.
- North Carolina's existing 15% film credit is a post performance rebate Incentive. North Carolina doesn't give any incentive until the film company spends money in North Carolina.

TO REMAIN COMPETITIVE, NORTH CAROLINA NEEDS AN INCREASE IN THE CREDIT TO 25%

- 42 states have passed incentives to recruit and retain film productions. 28 state have greater incentives than NC, including:
 - Georgia 30%
 - Louisiana 25%
 - South Carolina 20% - 30%
 - Illinois 30%
 - Michigan 42%
 - Massachusetts 25%
- NC has a competitive advantage within the US because of our extensive infrastructure and highly-skilled crew base. However, the state is losing productions to other states because of their increased credits. North Carolina needs an increased incentive to prevent the loss of our highly-skilled workforce to other states.
- An increase to a 25% credit would likely result in \$300 million in spending annually in the state by the film industry.
- The industry has begun to migrate to new film economy states. The migration of these creative class jobs could have much more significant and negative long-term effects including the loss of industry specific small business and other small businesses that survive in this challenging economy only because of the motion picture industry.
- North Carolina has the ability to immediately begin to create and retain thousands of knowledge-based, creative class jobs in the film industry if North Carolina increases the film industry tax incentive from 15% to 25%. These creative class jobs support and enhance other industries like commercial advertising production, theater and the fine arts, trade shows, gaming and education.



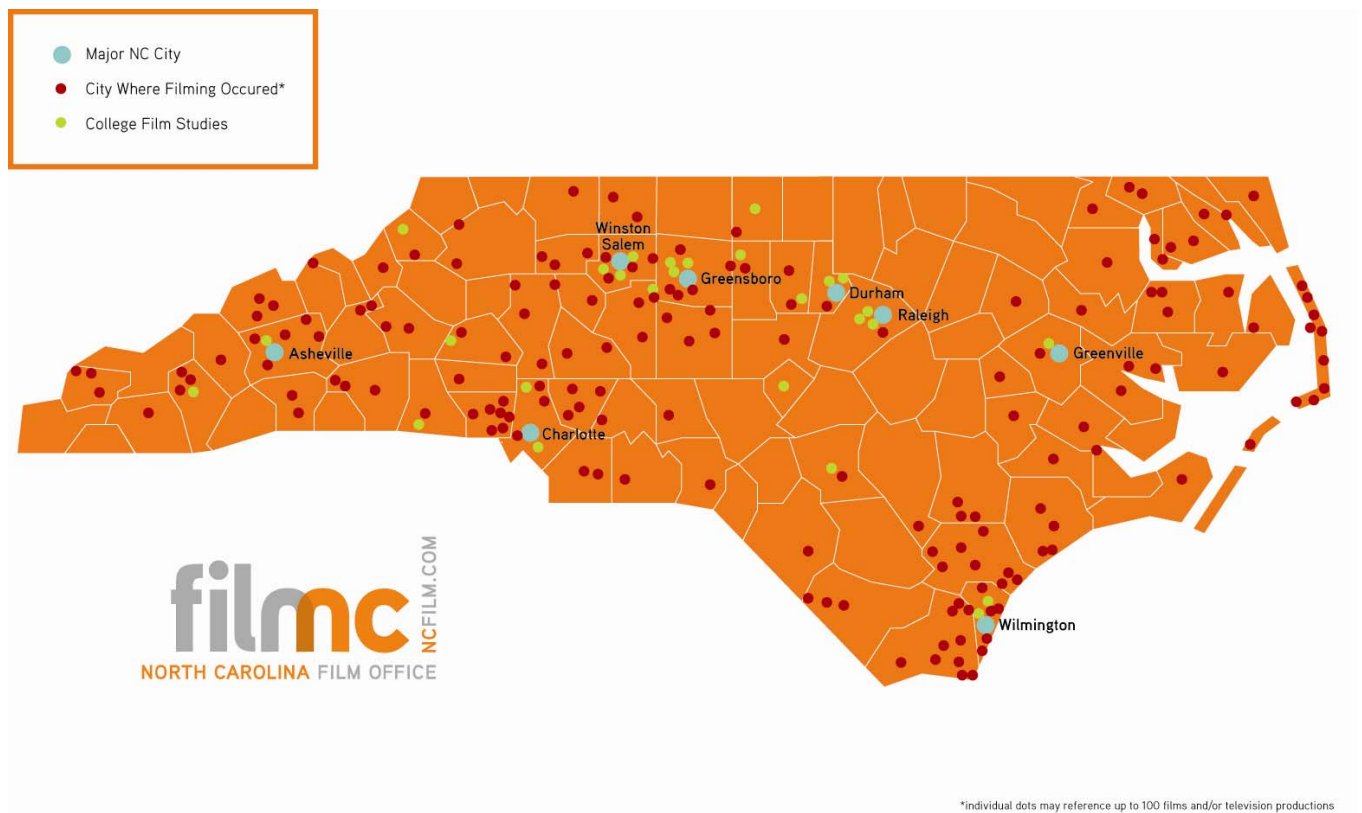
TWO STUDIES DEMONSTRATE IMPORTANCE OF FILM INDUSTRY TO NORTH CAROLINA

The studies taken together paint a picture of a significant industry whose economic activities turn over many times in a community. Unlike other industries, the film industry provides a constant stream of new projects that require certain baseline skills. It is difficult for economic models to fully capture what the industry means to the State and the implications of losing the industry. The economic contributions in the reports are conservatively understated.

- The Ernst and Young study focuses on the economic and fiscal impacts of the North Carolina film credit program for the year 2007
- The University of North Carolina at Wilmington study focuses on the expenditures of a single production in a local North Carolina community.
- The studies offer a conservative methodology in its projections relating to the impact of increasing our incentive to 25%.
- The study is focused on the impact if the tax credit is increased to 25%.
- Projections indicate 4,254 jobs will be created in 2010 and 5,053 in 2011.
- The total economic impact in North Carolina is estimated in excess of \$700 million in 2010 and \$858 million in 2011.
- The return on investment (ROI) for the state at 25% is \$.69 and the combined state and local ROI would increase to \$.92. That's ninety-two cents returned to state and local governments for every dollar spent on the tax incentive.
- The bottom line is that the 15% tax credit worked very well and the 25% tax policy has an excellent chance of working if the past is any guide.
- The alternative to remaining competitive is the dissolution of large portions of the industry and the loss of tax revenue based on the out-migration of highly skilled, highly compensated individuals to other "film" states.

CONCLUSION

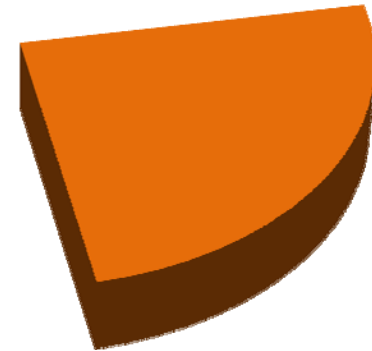
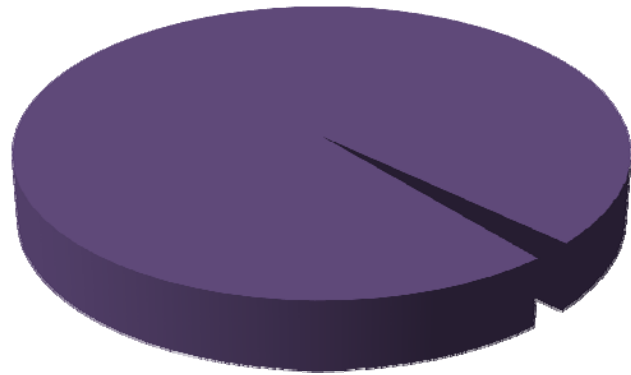
Other states have 'everything to gain.' North Carolina has 'everything to lose.'



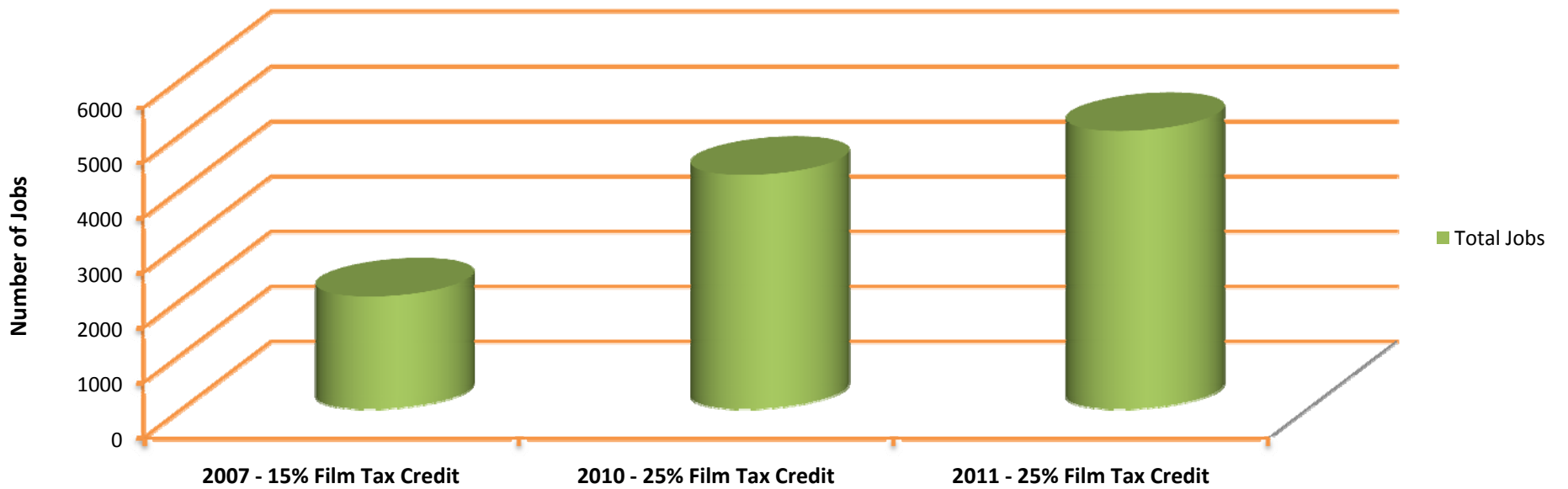
15% Film Credit Tax Revenue

■ State Return on Investment

■ Local Tax Revenue



Job Creation



MEMORANDUM

FROM: AARON SYRETT – DIRECTOR; NORTH CAROLINA FILM OFFICE
DATE: JUNE 15TH, 2009
SUBJECT: FILM STUDY

North Carolina has the ability to create and retain thousands of knowledge-based, creative class jobs in the film industry between now and December 2010 if SB 943 becomes law. North Carolina is uniquely positioned to recruit an abundant share of the motion picture industry from other states because of its significant workforce depth and highly developed infrastructure.

These creative class jobs support and enhance other industries in North Carolina that utilize the same disciplines but do not file for film credits. Commercial advertising production, trade shows, theater, gaming, education, and life sciences computer software are poised for growth. These jobs also provide a job market for our college and university graduates preparing for the challenges of our 21st century economy.

Over 2,000 North Carolina residents make their living in the motion picture industry. If North Carolina chooses not to significantly recruit this industry, North Carolina will continue to lose our well paid and highly skilled workforce to other states where the industry has begun to migrate. The migration of these creative class jobs could have much more significant and negative long-term effects including the loss of industry specific small business and other small businesses that survive in this challenging economy only because of the motion picture industry.

Attached to this memo you will find 2 studies that were commissioned by and funded in partnership with the North Carolina Film Office. EUE Screen Gems Studios, IATSE Local 491, Premiere Entertainment Services, Charlotte Regional Film Commission, Piedmont Triad Film Commission, Wilmington Regional Film Commission, Cinelease, and Illumination Dynamics, were our financial partners. They represent a state wide commitment to creating and retaining highly valued motion picture industry jobs.

Also included is a copy of the Motion Picture Association of America (MPAA) Economic Impact Study which provides an excellent analysis of the magnitude of this industry. The MPAA study makes several references to North Carolina and those passages are flagged.

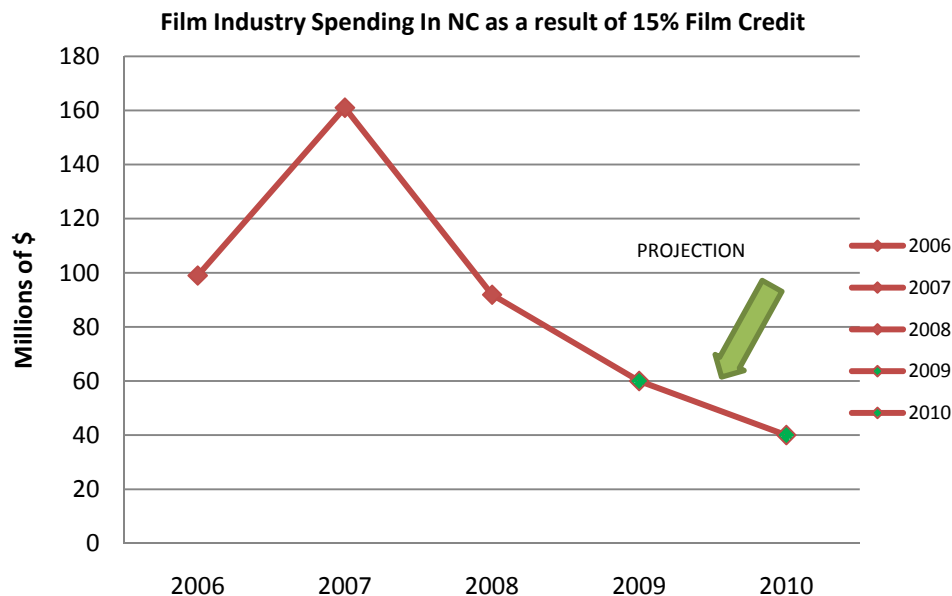
Our primary study prepared by Ernst and Young studies the economic and fiscal impacts of the North Carolina film credit program for the year 2007. This study offers a conservative methodology in its projections relating to the impact of increasing our incentive to 25%.

The second study, prepared by Dr. Woody Hall of the Cameron School of Business at the University of North Carolina at Wilmington, is a case study that identifies the spending impacts losses of one film not shooting in southeastern North Carolina in the summer of 2009.

Both the Ernst & Young and UNCW studies were designed to take a distinctively conservative methodology regarding the effect of the credit and spending impacts.

The 15% film credit passed by the General Assembly in 2006 has had a \$.98 return on investment (ROI.) With a combined state and local ROI of \$1.30, the film industry has proven to be a solid investment for the entire state.

In 2007, film production spending in North Carolina declined by 44% to \$90 million with declining projections of 55% over next two years because other states' incentives have lured a majority of all projects that considered North Carolina.



The second part of the Ernst & Young study is focused on the impact if the tax credit is increased to 25%. Projections indicate 4,254 jobs will be created in 2010 and 5,053 in 2011 with total economic impact in North Carolina in excess of \$700 million in 2010 and \$858 million in 2011. The ROI for the state and local tax at 25% is \$.92 and state tax ROI would increase to \$.69. Like the 15% incentive, full realization of the tax credit impact is not apparent until after year 3 of the increase.

Calendar year 2009 is likely to produce a very limited number of new projects, if any, as a result of the new credit, limiting any immediate obligations to North Carolina. The new projects resulting from the 25% credit and the economic stimulus resulting from the increased filming will primarily be realized in calendar year 2010. The majority of films will not file or receive the post performance audit credits until Fiscal Year 2011. There will be very little cost to North Carolina until the second full year of the program or 2011.

Conclusion

Unfortunately these types of economic studies do not cover the overwhelming implications of a policy decision to ignore current industry trends.

Over 2,000 North Carolina residents are motion picture technicians who depend on the film industry for jobs. Competing states are now employing North Carolina's motion picture industry workforce. Competing states with higher tax incentives are able to entice decision makers to shoot in states with incentives of 25% or better, even if there is no existing crew base or infrastructure, allowing those states to create an infrastructure where one had previously not existed. Other states have 'everything to gain.' North Carolina has 'everything to lose.' less than competitive tax incentive, North Carolina's motion picture industry, film technician community and industry small businesses simply cannot survive. The benefits of this lucrative industry will most certainly disappear and many North Carolina families will be forced to leave a state they call home.

Films will not be made in North Carolina and local economies will not reap the substantial economic stimulus of motion picture production if North Carolina does not take immediate action.

Economic and fiscal impacts of the North Carolina film credit program

June 2009

Prepared for:

North Carolina Film Office
EUE Screen Gems Studios
IATSE Local 491
Premiere Entertainment Services
Charlotte Regional Film Commission
Piedmont Triad Film Commission
Wilmington Regional Film Commission
Cinelease Inc.
Illumination Dynamics, Inc. An ARRI Group Company

Executive summary

In August 2006, legislation was enacted in North Carolina that provides for a refundable, 15% film tax credit. Since then, the program has attracted several feature film productions, television series productions, various commercials, music videos, and documentaries. In 2007, 16 feature film and television programs plus many smaller television commercials qualified for the North Carolina credit and spent an estimated \$228 million, including \$154 million of spending that qualified for the film tax credit.

This analysis presents two estimates of the impact of the North Carolina film tax credit program: the impact of the current credit at a rate of 15% and the potential impact of an enhanced credit, with a rate of 25%.

Key findings of the analysis of the current 15% film tax credit include:

- Film productions in North Carolina spent an estimated \$228 million of spending in 2007, of which \$154 million qualified for the film tax credit. This direct spending generated additional spending of \$162 million in the North Carolina economy, resulting in a total impact on statewide economic activity of \$390 million.
- North Carolina film productions generated 801 jobs in 2007. This direct employment created an estimated 1,244 additional, indirect jobs in other industries in North Carolina, resulting in a total employment impact of 2,045 jobs.
- Including the salaries and fringe benefits paid to these employees and capital income earned by North Carolina businesses, the direct statewide income impact from films receiving the credit in 2007 was \$120 million. Additional North Carolina economic activity related to film production activities generated an additional \$83 million in indirect statewide income, resulting in a total statewide personal income impact of \$203 million.
- Total economic impacts resulting from capital investments and film tourism resulted in 427 additional jobs and \$17 million in additional personal income.
- The total impact of the film tax credit including film productions, capital investments, and tourism was 2,472 total jobs and \$220 million of total statewide personal income.
- State and local tax collections resulting from North Carolina film productions in 2007 totaled an estimated \$25 million, including an estimated \$19 million in state tax revenue and \$6 million in local tax revenue. An additional \$4 million in tax revenue attributable to tourism and capital expenditures resulted in a total tax state and local impact of \$29 million.
- Film productions qualifying for the credit in North Carolina in 2007 accrued an estimated \$23 million of refundable credit cost to the state. Given the time value of money and the average length of time (12 months) before the credit is claimed by production companies and paid by the state, the net present value of this amount is \$22 million.

- The present value of \$22 million of film tax credit costs accrued during 2007 resulted in total state and local tax revenue of \$29 million, equivalent to a combined state and local return on investment of 1.30. In other words, for each \$1.00 of credit cost incurred by the state, state and local governments in North Carolina received \$1.30 in additional tax revenue. Considering only state taxes, the state return on investment was \$0.98 for each dollar of tax credit expenditure.

The analysis also examined the potential impact of increasing the credit rate to 25%:

- At a 25% film tax credit rate, the North Carolina Film Office projects that an estimated \$250 million of qualified spending would occur in 2010, increasing to \$300 million in 2011. This level of qualified spending is equivalent to more than \$370 million in total spending in 2010 and \$445 million in 2011.
- This level of film spending in North Carolina would create an estimated 1,301 direct film production jobs in 2010 and 1,561 jobs in 2011. These direct jobs in the film industry are estimated to support an additional 2,019 indirect jobs in 2010, growing to 2,423 in 2011. Combining the impacts of the direct jobs in the film industry with the indirect jobs in other industries that support films, the total employment impact from film production activity is estimated to be 3,320 in 2010 growing to 3,984 jobs in 2011.
- The total direct and indirect state and local tax impacts from film productions occurring under a 25% film tax credit equals an estimated \$40 million in 2010 and \$48 million in 2011.
- In addition to the economic benefits of films locating in North Carolina, films that depict North Carolina's landscape, attractions, and culture advertise the state to potential visitors. This phenomenon is known as film tourism. As the number of films produced in North Carolina grows, film tourism is expected to increase. Films produced in North Carolina in 2010 are expected to generate \$37 million of direct tourism spending while films produced in 2011 are projected to create \$45 million of direct tourism spending. The spending impacts for these years are equal to the discounted spending from film-related tourist visits in North Carolina over the 10 years following the actual production and release of the films.
- If the film tax credit rate is increased to 25%, film studios and other film related businesses are expected to make significant capital expenditures in North Carolina to create four new stages, management and production offices, warehouses, and construction shops for future film productions. These capital expenditures are projected to total \$44 million over 2010 and 2011 and create 520 total one-year jobs in North Carolina.
- The total number of jobs created from film productions, tourism, and capital expenditures is projected to total an estimated 4,254 in 2010 and 5,053 in 2011. These jobs will create an estimated \$370 million of personal income from 2010 productions and capital expenditures and \$441 million of personal income from 2011 productions and capital expenditures.
- The total state and local tax impacts from film productions, tourism, and capital expenditures in 2010 will be an estimated \$48 million and will increase to \$57 million in 2011 under a 25% film tax credit. This tax impact is equivalent to a combined state and local return on

investment of 0.92 in 2010 and 0.89 in 2011. Considering only state tax impacts, the return on investment is equivalent to 0.69 in 2010 and 0.67 in 2011. In other words, for each dollar of state credit cost, the state is projected to collect an estimated \$0.69 of additional tax revenue.

1. Introduction

In August 2006, legislation was enacted in North Carolina that provides for a refundable, 15% tax credit. Since then, the program has attracted several feature film productions, television series productions, various commercials, music videos, and documentaries. In 2007, 16 feature film and television programs plus many smaller television commercials qualified for the North Carolina credit and spent an estimated \$228 million, including \$154 million of spending that qualified for the film tax credit.

In addition to the economic impact of film production activity that qualifies for the credit program, there are also ancillary benefits from increased tourism and capital investments in film studios and related businesses in North Carolina.

This study presents estimates of the economic and tax impact of these three components: 1) film production activities, 2) tourism related to North Carolina films receiving the credit, 3) and capital expenditures in North Carolina film facilities. The cost of credit expenditures is compared to the incremental state and local tax generated by the credit program in 2007 to calculate a public return on investment in the credit program. Finally, the return on investment is projected for a hypothetical increase in the credit rate from 15% to 25%.

2. North Carolina's film industry and tax credit program

North Carolina's film industry has grown significantly due to the film tax credit. As described below, the credit provides a significant incentive for films to locate in North Carolina and has arrested the decline of the industry that has been occurring since 2001.

Description of the North Carolina film tax credit program

The current tax credit program in North Carolina was adopted in 2006 at a rate of 15% of qualifying production expenses incurred during the production and post-production of qualifying films, television series, and commercials produced in North Carolina. Spending qualified for the credit includes goods or services leased or purchased from a North Carolina business; expenditures related to goods or services imported from outside the state are excluded from the amount of qualified expenditures. Employee compensation on which withholding payments are remitted to the North Carolina Department of Revenue qualifies for the film tax credit, while fringe benefits and other non-taxable compensation are excluded from qualified expenditures. Additionally, compensation received by actors in excess of \$1 million is excluded from costs qualifying for the credit.

The tax credit is equal to 15% of the qualifying costs described above, although the maximum credit for a feature film is \$7.5 million.

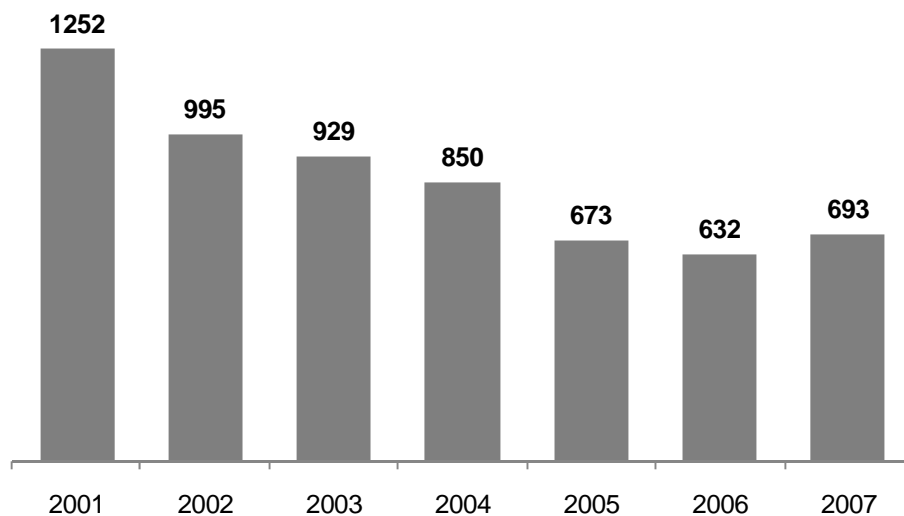
Decline of the North Carolina film industry prior to the adoption of the tax credit

North Carolina has historically had a thriving film industry, including the largest production facility in the United States outside of California and a large, well-trained crew base. However,

since 2001, many states have adopted film credits and North Carolina's employment in the film industry has declined.

Figure 1 illustrates the downward trend in North Carolina film industry employment, using data from the U.S. Bureau of Labor Statistics (BLS), which publishes an estimate of the employment in the North Carolina film and video production industry based on the number of employees and wages covered by the unemployment insurance program. While data published by the BLS does not fully capture the contribution of film production activities on the North Carolina labor force due to the industry's large number of contract employees (not included in the BLS figures), classification of film industry employees in the industry in which payroll companies are classified, and other factors, it provides a useful starting point from which to evaluate trends in the economic contribution of film and video productions in North Carolina. As Figure 1 shows, one year after the tax credit was enacted, employment in North Carolina's film production industry began growing after a five-year decline in the number of film industry jobs. The figure shows a 620 job decline from 2001 to 2006 and a slight increase of 61 jobs in the year after the 15% tax credit was enacted.

Figure 1. Employment in the North Carolina film and video production industry



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, NAICS 51211: Film and Video Production Industries

3. Data, assumptions, and estimation approach

The estimates presented in this study incorporate several key assumptions and sources of information. These data and assumptions are summarized below. (For a detailed discussion of the estimation methodology, see the appendix to this report.)

Data used in the analysis

Film spending data for productions with qualifying expenditures over \$250,000 in 2007 were provided by the North Carolina Film Office. For films that had filed a credit claim with the North Carolina Department of Revenue, total qualified expenditures were disaggregated into spending on goods, services, and compensation.

Because qualifying expenditures for goods and services include only purchases for goods and services from North Carolina businesses, total spending by North Carolina productions was estimated from qualified spending amounts based on the portion of goods and services supplied by the North Carolina economy indicated in the IMPLAN economic model. (See the appendix for an additional description of this adjustment.)

Aggregated payroll data for a sample of productions was supplied by the North Carolina Film Office. This data was used to estimate the number of jobs and average wages for North Carolina film employees in 2007. The data provided included aggregate wages (excluding non-taxable benefits) and the number of hours worked for above-the-line and below-the-line employees.¹ From this data, the average annual compensation was calculated assuming each employee works an average of 3,120 hours per year, equivalent to a full-time employee working an average of 12-hours per day.²

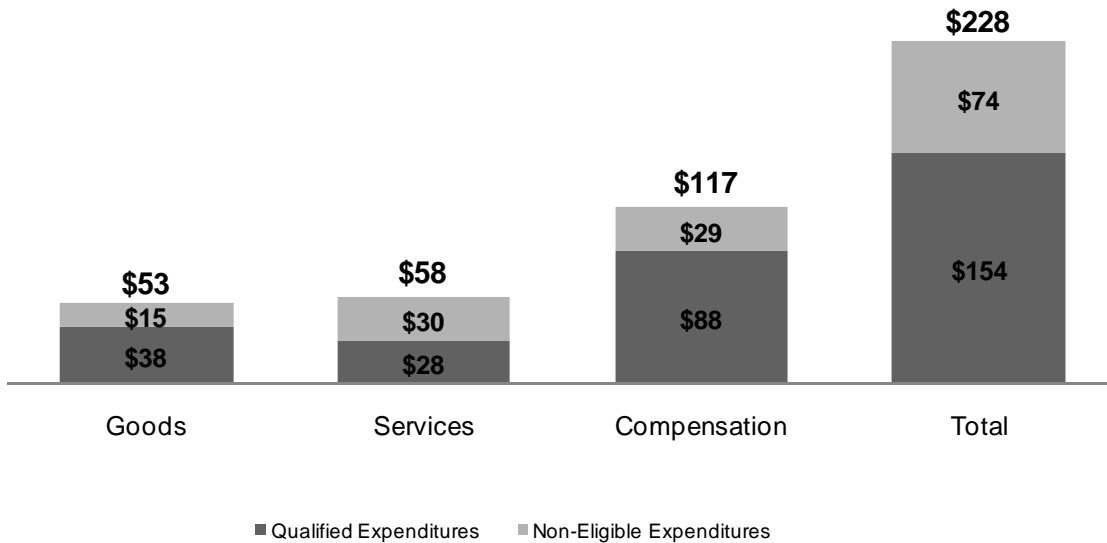
The payroll data provided by the North Carolina Film Office also included the state of residence for each employee. Based on this information, 39% of wages were earned by employees residing outside North Carolina. The economic impact estimates assume that only 50% of these employees spending would result in North Carolina economic impacts, although all of their wages are assumed to be taxable in North Carolina.

Based on the data described above, Figure 1 illustrates the total qualified and non-qualified spending on each category of expenditure. As shown in the figure, total compensation expenses of \$117 million include \$88 million of qualifying wage and salary payments, \$4 million of unqualified wages paid to extras and an estimated \$25 million of fringe benefit payments that do not qualify for the credit. Similarly, only a portion of total expenditures for goods and services qualify for the credit. For goods and services, an estimated 74% of goods and 50% of services are purchases made from North Carolina businesses and qualify for the tax credit. The non-qualifying goods and services expenditures reflect purchases from out-of-state businesses. In total, 67% total spending qualified for the film credit.

¹ Above-the-line employees are generally creative positions, such as writers, actors, directors, and producers. Below the line employees are generally technical positions, such as camera operators, editors, gaffers and other crew.

² Average number of hours worker per day was obtained through the North Carolina Film Office based on actual production reports showing the number of production hours per day. These production reports showed a typical morning crew call time of 8:00 am and a typical crew wrap after 8:30 pm.

Figure 2. 2007 Film production spending (\$millions)



Economic impact estimation approach

The economic impact of feature films, television series, and other productions participating in the tax credit program are described here as direct, indirect, and induced impacts. Film tourism and capital investments in film related infrastructure (described later) also create these direct, indirect, and induced impacts throughout the North Carolina economy. The indirect and induced impacts described below were estimated using an IMPLAN economic model of the North Carolina economy. Additional details describing the estimation approach can be found in the appendix to this report.

- **Direct impacts:** The direct impact is the employment, income, and spending associated with the activity being modeled. Direct spending impacts include the spending on productions in North Carolina in 2007. Direct income impacts include the income earned by employees and income derived from ownership of property associated with film production in North Carolina. Direct employment impacts include the employees who are employed by film productions in North Carolina receiving the film credit.
- **Indirect impacts:** Indirect impacts arise from the purchase of goods and services from North Carolina businesses that support the film industry in North Carolina. These impacts are part of the multiplier effects as direct spending spreads throughout the North Carolina economy as businesses buy from other businesses in an ongoing supply chain of products and services.
- **Induced impacts:** Consumer spending resulting from an increase in employees' personal income creates 'induced impacts'. This spending by crew members, make-up artists, actors, and employees in supplier firms generates additional economic activity as North Carolina's retailers and service providers expand to meet this additional demand for goods and services. To simplify the presentation of results, indirect and induced impacts are combined and presented together as 'indirect impacts'.

4. Economic and tax impacts of the 15% North Carolina film tax credit

Table 1 presents the impact of North Carolina film production activity in 2007. The direct, indirect, and total economic impacts are described using three measures of economic impact:

- **Economic Output:** Direct economic output, which is equivalent to spending, was \$228 million and created another \$162 million of indirect output, resulting in a total impact on economic output of \$390 million. As described above, direct output includes \$154 million of qualified spending and another \$74 million of other, non-qualifying spending.
- **Personal Income:** The direct personal income impact from film productions in 2007 was \$120 million, including \$92 million of wages, \$25 million of non-wage benefits, plus proprietor's income and payments to capital. The indirect economic activity in other sectors of the North Carolina economy generates an additional \$83 million of personal income impact, resulting in a total personal income impact of \$203 million.
- **Employment:** An estimated 801 direct employees in the film industry create an additional 1,244 indirect jobs in other sectors of the North Carolina economy, resulting in a total employment impact from film productions of 2,045 employees.³

Film productions that do not qualify for the film tax credit also benefit from the presence of a well-established crew base in North Carolina and film infrastructure that supports smaller productions. There are also other companies unrelated to film productions that share the same equipment or facilities (e.g. sound stages, digital technology, etc.) that benefit from and are able to expand in North Carolina due to the availability of equipment and trained workers. The impact of these productions and businesses is not included in the estimates.

Table 1
Economic impact of film production activities in 2007

Film Production Activities	Direct	Indirect	Total
Economic Output (\$mil)	\$228.3	\$161.6	\$389.9
Personal Income (\$mil)	\$120.2	\$82.6	\$202.8
Employment	801	1,244	2,045

Tax impacts of North Carolina film productions

The increased level of statewide economic activity due to the film tax credit generates additional North Carolina state and local tax collections. Table 3 shows the tax impacts at the state and local level that were generated by film activity in North Carolina in 2007. These impacts were estimated based on the estimated increase in personal income and historical ratios of tax

³ The ratio of total new jobs (2,045) to direct jobs (801) is 2.6. This "employment multiplier" indicates that each new direct job results in 2.6 total new jobs throughout the North Carolina economy.

collections to personal income in North Carolina. (For a more detailed discussion of the tax estimation approach, see the appendix.)

As shown in Table 2 below, the direct state tax impact of film productions in 2007 was \$11.9 million. Combined with indirect state tax impacts of \$6.8 million, an estimated \$18.8 million of state taxes resulted from film production activity in 2007.

The total local tax impact from film production activities in 2007 was \$6.0 million, including \$3.6 million of direct local taxes and \$2.4 million of indirect local taxes. This total local tax impact accounts for nearly one-quarter of the \$24.8 million total state and local tax impact from film production activity in 2007.

Table 2
Estimated tax impact of film production activities
(\$millions)

State	Direct	Indirect	Total
Sales Tax	\$2.3	\$1.6	\$3.9
Individual Income Tax	6.5	3.4	9.9
Franchise Tax	0.2	0.1	0.3
Corporate Income Tax	0.6	0.4	0.9
Corporate Income Tax on Credit*	0.4	0.0	0.4
Other State Taxes	2.0	1.4	3.4
Total	\$11.9	\$6.8	\$18.8
Local	Direct	Indirect	Total
Property Tax	\$2.5	\$1.7	\$4.2
Sales Tax	0.8	0.5	1.3
Other Local Taxes	0.3	0.2	0.5
Total	\$3.6	\$2.4	\$6.0
State and Local Taxes	\$15.5	\$9.3	\$24.8

* Corporate income tax adjustment for C-corporations receiving credit equal to 6.9% of credit amount

Economic and tax impacts of North Carolina film tourism

The film *Nights in Rodanthe* illustrates the impacts a single film can have on a state's tourism industry. *Nights in Rodanthe* was produced in the Outer Banks of North Carolina in 2007 and released in September 2008. Because the film was recently released and is just now available on DVD, there has not been sufficient visitor data collected to measure the total impact of this film on tourism in North Carolina. However, over a nine-month period from August 2008 through April 2009, an Outer Banks website devoted to promoting this film's actual location in North Carolina has been visited by 72,595 unique visitors (96,793 annualized) who have reached the site with queries such as, "Where was *Nights in Rodanthe* filmed?", "*Nights in Rodanthe* location", "*Nights in Rodanthe* beach house", "*Nights in Rodanthe* tour", etc. Although no data is available on the actual number of visitors to the Outer Banks induced to visit by the film, assuming 25% of these unique visitors to the website travel with an average family or

group of four to the Outer Banks and spend one day visiting the site where this film was produced, \$6.1 million in direct spending resulting in \$9.9 million of total economic output could be attributed to this particular film in the year after its release. This estimate is based on information provided by the Outer Banks Visitors Bureau indicating that average spending per visitor in the Outer Banks is \$63 per day. In the subsequent years, additional spending would be expected to occur as tourists continue to visit North Carolina or extend their stay as a result of seeing this film.

Table 3 below shows the potential multiple-year direct economic impact of *Nights in Rodanthe* on North Carolina tourism based on the information and assumptions discussed above. These impacts are the discounted spending and corresponding personal income impacts that occur in the years following the film’s release but are impacts that result from a film produced in 2007. The direct employment impact is the actual jobs that accrue in the tourism industry over time as the industry grows incrementally due to film tourism. Additional films produced in North Carolina that featured a North Carolina location could be expected to have similar tourism impacts, increasing the impact of film tourism each year.

Table 3. Economic impacts of film tourism

Economic Impact	Direct	Indirect	Total
Economic Output (\$mil)	\$19.9	\$12.3	\$32.2
Personal Income (\$mil)	\$10.0	\$6.3	\$16.3
Employment	311	104	415

The additional tax impact of tourist visitor spending is generated as taxes are collected from hotels, restaurants, car rental services, gasoline stations and gift shops that benefit from tourist activity in North Carolina. Table 4 shows these tax impacts, which are equivalent to \$3.8 million of state and local tax, based on the discounted tourism spending presented in Table 3.

Table 4. Tax impacts from film tourism (\$millions)

Tax Impact	Direct	Indirect	Total
State Taxes	\$1.5	\$1.2	\$2.7
Local Taxes	0.6	0.4	1.1
State and Local Taxes	\$2.1	\$1.6	\$3.8

Economic and tax impacts of film-related capital expenditures

In 2007, EUE Screen Gem Studios made a \$1 million capital investment in its Wilmington, North Carolina studio in addition to a \$250,000 investment made by Cinema Catering. These investments created an estimated \$111,000 in total state and local taxes in 2007. As the state attracts additional film activity and capital investments, this impact is expected to grow. The total impact estimates presented in the next section assume that this investment is attributable to the expansion of the industry due to the adoption of the film credit in 2006.

Total economic and tax impacts of the 15% North Carolina film tax credit

The total economic impacts of film productions, film tourism, and capital expenditures resulting from the tax credit in 2007 are shown in Table 5. Total annual output generated from 2007 film productions and ancillary activities is \$424 million. The total personal income is an estimated \$220 million and an estimated 2,472 jobs were created.

Table 5. Total economic impacts from film production, capital expenditures, and tourism

Economic Impact	Direct	Indirect	Total
Economic Output (\$mil)	\$249.5	\$174.7	\$424.2
Personal Income (\$mil)	\$130.5	\$89.3	\$219.8
Employment	1,118	1,353	2,472

The total tax impacts of the three components, film productions, film tourism, and capital expenditures are shown below in Table 6. At the state level, \$22 million of taxes were generated while \$7 million of local taxes resulted from the 2007 film activity. The total amount of state and local taxes collected was \$29 million.

Table 6. Total tax impacts from film production, capital expenditures, and tourism (\$millions)

State Taxes	Direct	Indirect	Total
Sales Taxes	\$3.2	\$1.9	\$5.0
Income Taxes	\$7.8	\$4.4	\$12.2
Other Taxes	\$2.4	\$1.8	\$4.3
Total State Taxes	\$13.4	\$8.1	\$21.5
Local Taxes	Direct	Indirect	Total
Property Taxes	\$2.7	\$2.0	\$4.7
Sales Taxes	\$1.2	\$0.6	\$1.8
Other Taxes	\$0.3	\$0.2	\$0.5
Total Local Taxes	\$4.2	\$2.9	\$7.1
State and Local Taxes	\$17.7	\$11.0	\$28.6

Return on investment at the 15% film tax credit rate

Table 7 presents the estimated state and local return on investment in North Carolina film tax credit expenditures. Qualified spending of \$154 million in 2007 resulted in \$23 million of accrued state credit cost. The net present value (NPV) of the credit cost is equal to \$22 million.⁴ Film productions and ancillary activities during 2007 generated just under \$22 million of additional state tax revenue, offsetting 98% of the state credit cost. In other words, for each dollar of state credit expenditure, state tax revenues increased by an estimated \$0.98.

⁴ The net present value of the state's credit cost is equal to the credit cost (\$23.1 million) discounted at a rate of 5% over an average 12 month payout period.

When both state and local taxes are considered, the total estimated tax impact exceeds the state credit cost. As shown in Table 7, the estimated state and local tax impact attributable to 2007 productions and ancillary activities was \$29 million compared to net present value of the credit of \$22 million, resulting in a combined state and local return on investment of 1.30. In other words, for each dollar of credit cost, \$1.30 was generated in additional state and local tax revenue.

**Table 7. Return on investment in film tax credit
(\$millions)**

Qualified spending	\$153.9
Credit rate	15%
Credit cost	\$23.1
Present value of credit cost	\$22.0
State taxes	\$21.5
State return on investment	0.98
State and local taxes	\$28.6
State and local return on investment	1.30

It is important to note that the numerator in the return on investment is measured as the change in state and local government taxes generated by the stronger state economy due to the film credit. It is limited to the public-sector benefits only. As shown in this analysis, the private-sector benefits total \$220 million in income and 2,472 additional jobs. These benefits are not included in the return on investment figures.

5. Potential economic and tax impacts of a 25% North Carolina film tax credit

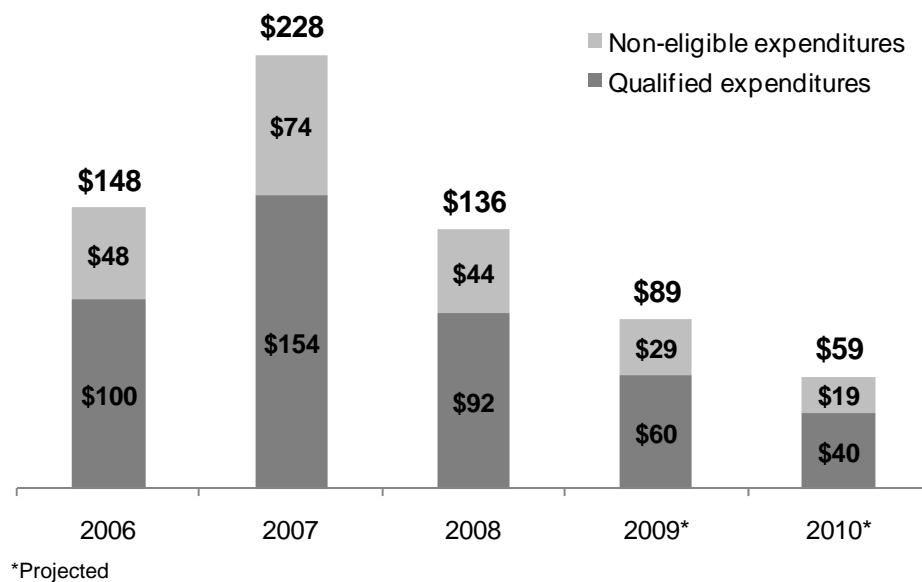
Many states compete to attract film productions and the associated jobs. Tax incentives have been an integral component of what competitive states offer production companies seeking to lower costs of production. North Carolina's 15% film credit attracted a significant number of productions in 2007, but has grown increasingly less effective as other states have adopted more competitive film credit rates ranging from 25% to 42%.

Comparison of projected levels of film production activity at 15% and 25% credit rates

Figure 3 below shows actual and projected film production spending from 2006 through 2010. The figure highlights the actual and projected decrease in film production spending in North Carolina since 2007 with estimates for 2009 and 2010 under a 15% credit.⁵ The decline is comparable with the decline in employment shown in Figure 1, which shows that North Carolina's film industry declined over the 2001-2006 period, during which other states began to offer credits but North Carolina did not. A similar trend is projected to occur as other states adopt more competitive credits than North Carolina's 15% credit.

Given the significant size of the past investment that created North Carolina's film industry infrastructure, the costs to the state of retaining the film industry by offering a higher film tax credit rate could be less than the costs of re-building the industry's infrastructure if the decline in the size of the film industry is not reversed. If the projected decrease in film production activity occurs, it is likely that North Carolina's film industry infrastructure will decline.

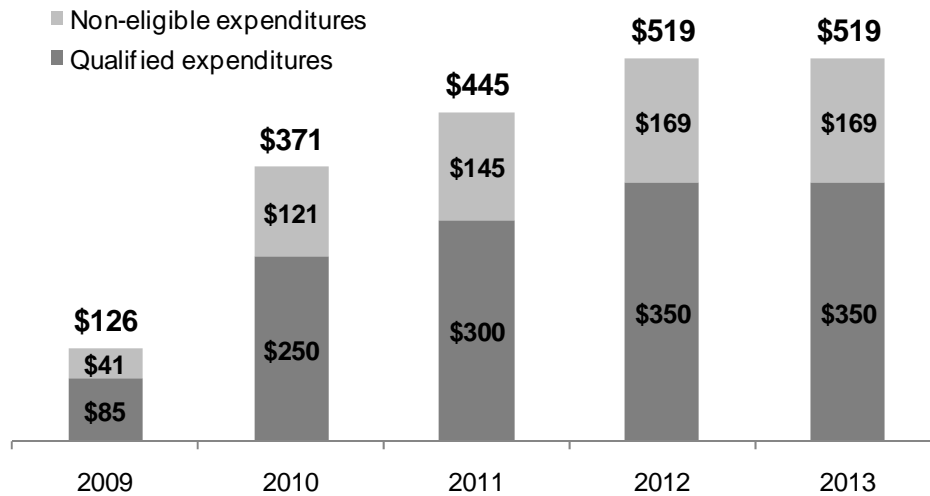
Figure 3. North Carolina film industry spending with 15% film credit (\$millions)



⁵ Projected film production spending in 2009 and 2010 was provided by the North Carolina film office.

States that have increased their credit rates to 25% or higher have experienced significant increases in the level of film production activity. As shown in Figure 4, the North Carolina Film Office projects that qualified expenditures would increase from \$154 million in 2007 to \$350 million by 2013 if a 25% credit rate is adopted. This increase in film spending in North Carolina would increase the total employment impact from productions to an estimated 4,649 jobs and would also increase the total personal income impact to an estimated \$461 million in 2010.

Figure 4. Projected North Carolina film spending with 25% credit (\$millions)



Projected economic impacts of a 25% film credit (2010-2011)

Table 8 presents the potential economic impact of the film credit at a 25% credit rate. Film industry spending with a 25% film tax credit rate would create an estimated 1,301 film production jobs in 2010 and 1,561 direct jobs in 2011. The personal income impacts associated with these jobs are \$195 million in 2010 and \$234 million in 2011.

The estimated production spending in 2010 (\$371 million) and 2011 (\$445 million) includes three films with average North Carolina spending of \$40 million, based on projections by the North Carolina Film Office.⁶ Given this assumption, \$10 million of spending by each \$40 million film would not generate credit costs due to the \$7.5 million maximum credit allowed under the film tax credit program. This \$7.5 million cap lowers the effective credit rate on a \$40 million film to 18.8% of qualified expenditures. In other words, for three films with a total of \$120 million in qualified expenditures, \$30 million of their qualified spending will not generate additional credit costs but would generate additional economic activity and state and local tax revenues. It is important to note that when production companies are considering a location for a film, the effective credit rate is the determining factor when considering tax incentives. A credit cap lowers the effective credit rate for films that have expenditures that would otherwise qualify but do not generate credit cost because a credit cap has been reached. Generally speaking, larger budget films would likely locate where no credit cap is in place.

The direct economic output impacts from film tourism are estimated to be \$32 million from 2010

⁶ The North Carolina Film Office projects that three \$40 million films will be attracted to the state each year as a result of increasing the credit from 15% to 25%.

productions and \$39 million from 2011 productions. These amounts reflect the tourism spending that is projected to occur in future years due to films that were produced in North Carolina during the year indicated. For example, the amount of tourism spending shown for 2010 reflects the projected tourism spending that results in years after 2010 as potential tourists view films produced in North Carolina during that year. Film tourism is projected to create an estimated 505 jobs from 2010 productions and 606 jobs from 2011 productions.

The estimates of tourism spending assume that each dollar of direct film production spending will generate more than two cents of additional film tourism activity, based on the estimated ratio of film tourism spending to film production spending in 2007. The estimates assume that films have the most impact on film tourism in the year of their release. In each subsequent year, the analysis assumes that a film has 75% of the impact it had in its first year. That is, in any year, a film has 25% less impact than in the prior year.

Capital expenditures of \$44 million are projected to occur over the two-year period, 2010-2011. These projects are currently planned for the Charlotte area and will include four new stages, management and production offices, warehouses, and construction shops. The impact of these expenditures includes 165 direct jobs and \$7.3 million of personal income each year.

The total estimated economic impacts of North Carolina's film credit at a 25% rate are shown below in Table 8. The total combined economic output impact for the three components analyzed, film productions, film tourism, and capital expenditures, is an estimated \$722 million for 2010 and \$858 million for 2011. This level of economic activity will create an estimated 4,254 jobs in 2010 and 5,053 jobs in 2011. These jobs will create \$369 million of personal income in 2010 and \$441 million of personal income in 2011.

Table 8
Economic impacts of film, tourism, and capital expenditures

Economic	Direct Impact		Total Impact	
	2010	2011	2010	2011
Film production				
Output (\$mil)	\$370.8	\$445.0	\$633.2	\$759.8
Personal Income (\$mil)	\$195.2	\$234.3	\$329.4	\$395.3
Employment	1,301	1,561	3,320	3,984
Film tourism				
Output (\$mil)	\$32.4	\$ 38.5	\$52.4	\$ 62.3
Personal Income (\$mil)	\$16.2	\$ 19.5	\$26.5	\$ 31.8
Employment	505	606	674	809
Capital expenditures				
Output (\$mil)	\$22.0	\$22.0	\$36.3	\$36.3
Personal Income (\$mil)	\$7.3	\$7.3	\$13.6	\$13.6
Employment	165	165	260	260
Total economic impact				
Output (\$mil)	\$425.2	\$ 505.5	\$721.9	\$ 858.5
Personal Income (\$mil)	\$218.8	\$ 261.0	\$369.5	\$ 440.6
Employment	1,971	2,332	4,254	5,053

Projected tax impacts of a 25% film credit (2010-2011)

The estimated tax impacts of a 25% film tax credit are presented in Table 10. State and local direct tax collections will total approximately \$30 million in 2010 and \$36 million in 2011. In 2010, direct state and local taxes from film productions are estimated to equal \$25 million in 2010 and \$30 million in 2011. Direct state and local taxes resulting from film tourism associated with films produced in 2010 are estimated to be \$3 million, which increases to \$4 million for films produced in 2011. More than an estimated \$1 million of direct state and local taxes attributable to capital expenditures will be collected in 2010 and another \$1 million in 2011.

Table 10 also shows the total tax impact of the 25% tax credit, including both the direct and indirect tax impacts. As shown in the table, the total state tax impact is estimated to be \$36 million in 2010 and \$43 million in 2011 while the local tax impact is estimated to be \$12 million in 2010 and \$14 million in 2011, resulting in a combined state and local tax impact of \$48 million in 2010 and \$57 million in 2011.

Table 10
Tax impacts of film, tourism, and capital expenditures (\$millions)

Tax Impacts	Direct		Total	
	2010	2011	2010	2011
Film production				
State taxes	\$19.3	\$23.2	\$30.5	\$36.5
Local taxes	\$5.8	\$6.9	\$9.8	\$11.7
State and local taxes	\$25.1	\$30.1	\$40.2	\$48.3
Film tourism				
State taxes	\$2.4	\$2.9	\$4.3	\$4.9
Local taxes	\$1.0	\$1.2	\$1.7	\$1.9
State and local taxes	\$3.4	\$4.1	\$6.1	\$6.8
Capital expenditures				
State taxes	\$0.9	\$0.9	\$1.4	\$1.4
Local taxes	\$0.4	\$0.4	\$0.6	\$0.6
State and local taxes	\$1.3	\$1.3	\$2.0	\$2.0
Total direct tax impacts				
State taxes	\$22.6	\$27.0	\$36.2	\$42.9
Local taxes	\$7.2	\$8.5	\$12.1	\$14.2
State and local taxes	\$29.8	\$35.5	\$48.3	\$57.1

Return on Investment at 25% Tax Credit Rate

Based on projected qualified spending that will grow to \$250 million in 2010 after the adoption of the 25% credit rate, the credit cost accrued in 2010 would increase to \$55.0 million.⁷ Table 12 shows that the net present value of the \$55.0 million credit cost is \$52.4, assuming that credits are not claimed for an average of one year after a film production. This higher level of spending would also increase state tax revenue to an estimated \$36 million and combined state and local taxes to an estimated \$48 million. This level of credit cost and the estimated state and local tax impact results in a combined state and local return on investment of 0.92 in 2010 and 0.91 in 2011. In other words, for each dollar of state credit cost, state and local taxes would increase by \$0.92 in 2010 or \$0.91 in 2011. Ignoring the local tax impact that results from the 25% credit rate, the state return on investment is projected to be 0.69 in 2010 and 2011.

The estimated return on investment reflects the additional state and local taxes that would be collected for each additional dollar of state credit cost. As shown in Table 12, if the credit rate is increased to 25%, state credit costs increase by a larger percentage than state and local tax collections, reducing the combined state and local ROI to 0.92 in 2010 from 1.30 in 2007.

Table 12. Projected Return in Investment in Film Tax Credit at a 25% Credit Rate (\$Millions)

	2010	2011
Qualified spending	\$250.0	\$300.0
Credit rate	25%	25%
Credits before cap	\$62.5	\$75.0
Accrued credit cost after cap	\$55.0	\$67.5
Present value of credit cost	\$52.4	\$64.3
State taxes	\$36.2	\$42.9
State return on investment	0.69	0.67
State and local taxes	\$48.3	\$57.1
State and local return on investment	0.92	0.89

⁷ The accrued credit cost on \$250 million of qualified expenditure is \$62.5 million, but due to the credit cap per film, and the assumption that there will be three films with a combined total of \$30 million of qualified expenditures that do not generate credit costs, the expected credit cost is reduced to \$55 million.

Appendix: Description of methodology

Economic impacts

The sections below describe the economic impact estimation approach, including the calculation of the direct impacts and the derivation of the economic multipliers. Unless otherwise noted, 2007 data production data and estimates are described below.

Direct economic impacts

Direct production spending, personal income, and employment impacts are based on data provided by the North Carolina Film Office or imputed based on a sample of films produced in North Carolina in 2007.

Direct Economic Output (Production Spending). The direct output impact of film productions is equal to the amount of spending that occurred in 2007 by production companies applying for the North Carolina film credit. Data provided by the North Carolina Film Office indicated only the amount of qualified spending, which excludes expenditures related to imported goods and services and non-taxable fringe benefits. This qualified spending amount is shown in Table A.1, in the column labeled “Qualified Spending.”

To reflect the total amount of spending by North Carolina film productions, an adjustment for spending on goods and services imported to North Carolina was made by increasing amounts for qualified goods and qualified services by the estimated amount of non-qualified goods and services purchased outside North Carolina. The IMPLAN economic model of North Carolina assumes that 74% of goods and 50% of services used by North Carolina productions are purchased from in-state companies while the remainder is imported. Therefore, the qualified spending amounts must be increased to reflect total spending (supplied by North Carolina firms and imported). Table A.1 shows spending on goods and services before and after this adjustment. The table also shows the amount of spending by commercial productions that did not qualify for the 15% film credit but were attracted to North Carolina because of infrastructure and cast and crew that are located in North Carolina largely due to the existence of the 15% credit.⁸

Table A.1 – Qualified & total spending, 2007

	Qualified Spending	% Spending Qualifying	Total Spending
Goods	\$38.3	74%	\$51.6
Services	\$27.6	50%	\$55.7
Compensation	\$88.0	75%	\$116.7
Non-Qualifying Commercials	\$0.0	0%	\$4.4
Total Spending	\$153.9	67%	\$228.3

⁸ North Carolina retained an estimated 50% of its non-qualifying commercial production spending (\$8.8 million) due to the 15% film tax credit in 2007.

Direct Personal Income. The direct personal income impact is equal to total wages, fringe benefits, proprietor’s income, and other property income generated from productions in 2007. Film budget data received from the North Carolina Film Office indicates that qualified compensation averages 57% of total qualified expenses for the sample of 2007 film productions that applied for the credit and submitted this expense data to the North Carolina Department of Revenue. Non-qualifying fringe benefits are assumed to be equal to 18% of qualifying compensation plus payroll taxes and other employer costs equal to 10% of qualifying compensation. Finally, \$4 million of non-qualifying wages paid to extras was included.

Direct Employment. Employment was derived by dividing the total qualified wage payments by the estimated average annual salary of \$115,000. The average wage amount is based on data received from the North Carolina Film Office describing the number of hours worked and wages earned for employees working on films produced in North Carolina from 2006 to 2008, assuming that employees work 3,120 hours per year. The number of hours worked per year was derived from production reports summarized by the North Carolina Film Office that showed typical production days exceeded 12 hours in length, with typical crew calls at 7 am and crew wraps after 8:30 pm.

Economic multipliers

Output. The North Carolina IMPLAN model was adjusted to reflect the film budget and payroll data received from the North Carolina Film Office. These adjustments resulted in an increase in the output per worker for the motion picture industry. The output (production spending) per worker for the motion picture industry was increased from \$110,000 in the stock 2007 North Carolina IMPLAN model to \$285,000 in the adjusted model. The model adjustments increase the output multiplier from 1.74 in the initial IMPLAN model to 1.71 in the adjusted model.

Personal Income. To reflect the data received from the North Carolina Film Office, average compensation per worker was increased from \$17,700 in the stock IMPLAN model to \$135,000 in the adjusted model. Additionally, aggregated payroll data provided by the North Carolina Film Office indicates that 39% of compensation is paid to employees residing outside of North Carolina. Therefore, an adjustment was made to the induced spending estimates derived using the IMPLAN model. One-half of the induced impact resulting from income earned by non-residents was excluded from the impact. This adjustment reduces the overall induced economic impact from \$44.3 million to \$35.9 million.

The model adjustments reduce the combined personal income (labor income and other property type income) multiplier from 2.69 in the initial IMPLAN model to 1.69 in the adjusted model.

Table A.2 – Induced personal income impact adjustment

	Direct	Indirect	Induced	Total
Personal Income w/o adjustment (\$mil)	\$120.2	\$46.8	\$44.3	\$211.3
Personal Income w/adjustment (\$mil)	\$120.2	\$46.8	\$35.9	\$202.8

Employment. The model adjustments described above increase the employment multiplier from 1.67 in the stock IMPLAN model to 2.55 in the adjusted model.

Table A.3 – IMPLAN model multipliers

Multiplier	Initial Model	Adjusted Model
Output	1.74	1.71
Personal Income	2.69	1.69
Employment	1.67	2.55

Film tourism impacts

The estimates of tourism spending assume that each dollar of direct film production spending will generate almost 3 cents of additional film tourism activity, based on the estimated ratio of film tourism spending in the year following a production to the cost of the production. For 2007, productions totaling \$228.3 million generated \$6.1 million in film tourism spending the following year, 2008. The estimates assume that films have the most impact on film tourism in the year of their release, which is assumed to be the year after production. In each subsequent year after release, the analysis assumes that a film has 75% of the impact it had in its first year. That is, in any year, a film has 25% less impact than in the prior year. Table A.4 shows this ‘spending decay’ that occurs in the first year through the tenth year after popular films are produced in North Carolina. The total spending amount and the net present value of that amount are shown on the bottom two rows of the table. The net present value assumes a 5% discount rate.

Table A.4 – Film tourism spending

Years Following Production	Tourism spending from 2007 film productions	Tourism spending from 2008 film productions	Tourism spending from 2009 film productions	Tourism spending from 2010 film productions	Tourism spending from 2011 film productions
1st Year	\$6.1	\$3.6	\$3.4	\$9.9	\$11.9
2nd Year	\$4.6	\$2.7	\$2.5	\$7.4	\$8.9
3rd Year	\$3.4	\$2.0	\$1.9	\$5.6	\$6.7
4th Year	\$2.6	\$1.5	\$1.4	\$4.2	\$5.0
5th Year	\$1.9	\$1.2	\$1.1	\$3.1	\$3.8
6th Year	\$1.4	\$0.9	\$0.8	\$2.4	\$2.8
7th Year	\$1.1	\$0.6	\$0.6	\$1.8	\$2.1
8th Year	\$0.8	\$0.5	\$0.4	\$1.3	\$1.6
9th Year	\$0.6	\$0.4	\$0.3	\$1.0	\$1.2
10th Year	\$0.5	\$0.3	\$0.3	\$0.7	\$0.9
Total tourism spending	\$23.0	\$13.8	\$12.7	\$37.4	\$44.9
Net present value	\$21.9	\$13.1	\$12.1	\$35.6	\$42.7

Tax Impacts

North Carolina Tax Revenues

Tax impacts on state and local governments were estimated by multiplying the ratio of historical tax collections to state wide personal income by the total personal income impacts estimated using the IMPLAN economic model. There were two exceptions to this methodology used in the study, the direct individual income tax and direct corporate income tax adjustment, described below.

Individual Income Tax. The direct individual income tax impact was estimated using an average tax rate for above-the-line and below-the-line taxable wages. Average taxable income for above-the-line labor was equal to \$350,000 while below-the-line labor earned an estimated average salary of \$91,000. Roughly 72% of total wages paid in 2007 productions were below-the-line while above-the-line wages accounted for the remaining 28%. Based on the average annual earnings for both groups of employees, the average individual income tax rate was estimated based on North Carolina 2007 tax rate schedules for married taxpayers who do not file joint returns. Taxable compensation paid to above-the-line employees was multiplied by the 7.79% average income tax rate shown in Table A.4, while compensation paid to below-the-line employees was multiplied by the 7.22% average income tax rate.

Table A.5 – Average Individual Income Tax Rates

Income Tax Rates (2007): Married who do not file joint returns	
\$100,000 and above	8.00%
\$50,000 - \$100,000	7.75%
\$10,625 - \$50,000	7.00%
Over 0 - \$10,625	6.00%
Above-the-line taxable income	\$350,187
Below-the-line taxable income	\$91,186
Average rate for above-the-line	7.79%
Average rate for below-the-line	7.22%

Corporate Income Tax Withheld on Film Credit. A 6.9% corporate income tax credit adjustment is made for C-corporations who claim a film tax credit in North Carolina. In 2007, an estimated 21% of total credits (\$5.2 million) were generated by C-corporations. Approximately \$360,000 in corporate income tax liability resulted from these credit payments to C-corporations, reducing the effective tax credit for C-corporations to 14%.

Sales Tax: In North Carolina, a 1% privilege tax is imposed on sales of specific transactions in lieu of sales and use tax. Because detailed information on the amount of goods and services purchased by production companies in 2007 that would be subject to this reduced rate was not

available, this sales tax adjustment was not incorporated into the estimates. Had sufficient data been available to incorporate this adjustment, the direct sales tax impact for production activity would be reduced.

North Carolina Film Credit Expenditures

Total qualifying film expenditures for 2007 were provided by the North Carolina Film Office. North Carolina's current film tax credit rate of 15% was applied to the total qualifying expenditures to estimate the total film credit expenditures accrued in 2007. Based on information from the Film Office, credit payments are paid to qualifying productions 12 months following the end of production. The credit costs were discounted to the present value of the future payments by a 5% rate of over 12 months. Based on these assumptions, an estimated \$23 million of credit costs has a net present value of \$22 million.

Under a 25% tax credit program, three films per year are estimated to have qualified expenditures of \$40 million. Of this \$40 million per film, only \$30 million would generate credit costs due to the credit cap of \$7.5 million. The additional \$10 million of qualified spending per film will generate economic activity and tax revenue for the state and local governments at no cost to the state.

**Economic Impact Study of the Production of a ‘Mid-Major’
Motion Picture on the Economy of Southeastern North
Carolina**

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**Research Project for the Wilmington Regional Film Commission, Inc.
Wilmington, North Carolina**

Economic Impact Study of the Production of a ‘Mid-Major’ Motion Picture on the Economy of Southeastern North Carolina

Executive Summary

The motion picture industry has been an active component of the Southeastern North Carolina economy since the early 1980s. To date, the local area has hosted over 300 features, mini-series, movies of the week, and eight television series along with numerous commercials and music videos.¹

The production of a “mid-major” motion picture has sizeable economic effects on Southeastern North Carolina, viz., Brunswick, New Hanover, and Pender Counties. A “mid-major” production is defined as a production with a budget of approximately \$25 million.

A typical production supports \$18.67 million in total economic activity, 650 jobs (including part-time and full-time), \$9.23 million in wages and salaries, \$3.09 million in self-employment income (e.g., doctors, dentist, and small business), \$1.66 million in property income (e.g., rents, interest payments, corporate profits/dividends, and royalties), and \$265,000 in state sales and excise tax (e.g. gasoline tax and cigarette tax) revenues. The local government share of these sales and excise tax collections is \$88,000. These local governments receive \$530,000 in county property tax collections. Given current tax rates, property valued at \$124.8 million would be necessary to generate these property tax collections.

Based on a possible average of four such productions being completed during a 12-month period, the impacts rise accordingly. The impact on total economic activity of \$74.67 million represents approximately 0.6 percent of estimated 2009 gross regional product. The job impact does not change as it is assumed that

production schedules do not overlap and thus that the same employees can be utilized in more than one production. The impacts on personal income are follows: \$36.93 million in wages and salaries, \$12.37 million in self-employment income, and \$6.64 million in property income. For the 650 workers supported during film production, the average annual labor income is \$76,000, 119 percent above the all-sector average annual salary for the three-county region. The impact on per capita personal income, which adds property income to labor income, is \$86,000, 155 percent above the area-wide per capita personal income estimate. Sales and excise tax collections total \$1.06 million, with a local government share of \$354,000. County property tax collections total almost \$2.12 million. The size of the associated property tax base (the value of property required to generate these tax payments at current property tax rates) is \$499.2 million, approximately 0.7 percent of the 2008-09 appraised value of the three-county property tax base.

Economic Impact Study of the Production of a ‘Mid-Major’ Motion Picture on the Economy of Southeastern North Carolina

I. Introduction

In the summer of 2009, the Wilmington Regional Film Commission, Inc. contracted with the University of North Carolina Wilmington Center for Business and Economic Services for a faculty research team to conduct a study of the economic impact that the production of a “mid-major” motion picture would likely have on the economy of Southeastern North Carolina, defined as Brunswick, New Hanover, and Pender Counties. For the purposes of this study, a “mid-major” motion picture production has a budget of approximately \$25 million.

II. The Nature of an Economic Impact Study

An economic impact study is conducted to estimate the impacts of specific economic activities (e.g., the “production”) on the overall economy of a geographic region. The impacts take several forms. The most obvious is the direct impact of the initial, specified economic activities on employment, employee salaries, payments to suppliers, and taxes paid by employees and suppliers. Beyond this direct impact, there are the additional indirect and induced impacts² that reflect the “economic ripple effects,” or “multiplier effects,” of the initial direct impact. These ripple effects are generated because a portion of every direct-impact dollar received by employees and suppliers is re-spent in the local economy (viz., that portion that is not saved, spent on imports or lost to federal, state, and local taxes). In turn, this re-spending generates additional employment, salary and supplier payments, and tax

revenue. Total economic impacts are the sum of the direct, indirect, and induced impacts.

The computer input-output model used to estimate these economic impacts was developed using the IMPLAN Professional™ for Windows™ (Version 2.2) software. This software is commonly used by business, government, and academic institutions to provide assistance in developing economic impact analyses.

Input-output models are widely used in economic impact studies. Simulated input-output models are far from perfect as they are approximations of area or regional spending patterns or transactions based on the known structure of regional economies. Developed by economists at the University of Minnesota, IMPLAN uses data developed by the U. S. Bureau of Economic Analysis and is a leading input-output modeling software package. IMPLAN is currently used by over 1,000 public and private institutions for economic impact analysis.

III. The Study

This study estimates the total economic impact – the sum of the direct, indirect, and induced impacts – that a “mid-major” movie production would have on the three-county economy of Brunswick, New Hanover, and Pender Counties in Southeastern North Carolina. All dollar figures are in first quarter 2009 dollars. The impacts are based on the 2007 structure of the three-county economy.

Estimated total (direct, indirect, and induced) impacts include those on gross output or sales, employment (full-time and part-time), payrolls (wages and salaries), self-employment income, property income, and selected state and local government taxes. Self-employment income is income earned by self-employed individuals in the

three-county area, such as many doctors, dentists, and small business owners.

Property income is income from such sources as rents, interest payments, corporate profits/dividends, and royalties.

The Wilmington Regional Film Commission provided detailed budget data for a “mid-major” film which was recently considering production in the local area. The total budget for the film production was approximately \$25 million. The name of the production company and the associated film were not provided for reasons of confidentiality. The budgeted items are shown in Table 1.

Table 1
Budget for “Mid-Major” Motion Picture Production

State Wages	\$11,000,000
1099 Payments	\$500,000
Loan-Out Payments	\$2,800,000
Food	\$380,000
Construction	\$120,000
Wardrobe	\$40,000
Camera	\$230,000
Electric	\$300,000
Set Dressing	\$200,000
Grip	\$200,000
Special Effects	\$40,000
Props	\$70,000
Accommodations	\$450,000
Per Diems	\$500,000
Rental Cars	\$150,000
Airfares	\$300,000
Fuel	\$150,000
Security	\$100,000
Police	\$45,000
Trash Removal	\$40,000
Postage	\$115,000
Medical	\$40,000
Offices	\$70,000
Telecommunications	\$70,000

Source: Wilmington Regional Film Commission

IV. Economic Impacts

Table 2 shows the economic impacts of a “mid-major” motion picture production. The dollar figures reported in the table are in first quarter 2009 dollars.

Table 2
Economic Impacts of a Mid-Major Motion Picture Production

Type of Impact	Direct	Indirect	Induced	Total
Output	\$12,584,000	\$1,586,000	\$4,498,000	\$18,668,000
Employment¹	570	30	50	650
Wages and Salaries	\$7,595,000	\$416,000	\$1,222,000	\$9,233,000
Self-Employment Income	\$2,858,000	\$76,000	\$158,000	\$3,092,000
Property Income	\$1,273,000	\$102,000	\$284,000	\$1,659,000
State Sales and Excise Taxes^{2,3}	N.A.	N.A.	N.A.	\$265,000
Local Government Share^{2,3}	N.A.	N.A.	N.A.	\$88,000
County Property Tax Collections³	N.A.	N.A.	N.A.	\$530,000
(Equivalent) Property Tax Base^{3,4}	N.A.	N.A.	N.A.	\$124,800,000

¹ The employment impact includes both full-time and part-time employment.

² Each of the three county governments levies a 2.25% sales tax. After debiting a collection fee, state government remits the residual to the county government.

³ The IMPLAN software does not provide separate estimates of direct, indirect, and induced tax impacts.

⁴ The estimate of the size of the property tax base that would support \$530,000 in county property tax collections is calculated by dividing the collections by a weighted average county tax rate using the FY 2008-09 value of county taxable property as weights.

Source: IMPLAN model and authors' calculations

During filming, the production would support \$18.67 million in total output or economic activity in the three-county area. Other impacts include 650 jobs (full-time and part-time), \$9.23 million in wages and salaries, \$3.09 million in self-employment income, and \$1.66 million in property income. A total of \$265,000 in state sales and excise taxes would be collected. The local government share of these

sales and excise tax collections would be \$88,000. County property tax collections would total \$530,000. The associated tax base which would generate these property tax collections at FY 2008-09 property tax rates is \$124.8 million.

Table 3 shows the distribution of the output impacts³ during movie production. Only those six sectors that experience an increase of at least \$650,000 in output or gross income are itemized in the table. Combined, these six sectors account for 57.4 percent of the total impact.

Table 3
Distribution of Output Impact During Movie Production

IMPLAN Sector	Output Impact	% of Total
Total	\$18,668,000	
Private Households	\$4,032,000	21.6
Domestic Trade	\$3,248,000	17.4
Hotels and Motels	\$1,064,000	5.7
Commercial and Institutional Buildings	\$1,046,000	5.6
Specialized Design Services	\$672,000	3.6
Owner-Occupied Dwellings	\$653,000	3.5
All Other	\$7,953,000	42.6

Source: IMPLAN model and authors' calculations

Table 4 shows the distribution of the employment impacts during movie production. Only those nine sectors that experience support of at least five jobs are itemized in the table. Combined, these nine sectors account for 84.8 percent of the total employment impact. The private household sector alone accounts for 76 percent of the employment impact. Thus, local residents are the primary beneficiaries of the employment impacts. Household members are employed both directly in film production and by supplying vendors.

Table 5 shows the distribution of the impact on wages and salaries during movie production. Only those seven sectors that experience an increase of at least \$160,000 in wage and salary income payments are itemized in the table. Combined, these seven sectors account for 71.1 percent of the total wage and salary income payment impact. The private household sector alone accounts for 48.6 percent of the impact.

Table 4
Distribution of Employment Impact During Movie Production

IMPLAN Sector	Jobs Impact	% of Total
Total	650	
Private Households	490	76.0
Hotels and Motels	20	2.4
Commercial and Institutional Buildings	10	1.6
Business Support Services	5	0.8
Food Services and Drinking Places	5	0.8
Specialized Design Services	5	0.8
Gasoline Stations	5	0.8
Photographic Services	5	0.8
Investigation and Security Services	5	0.8
All other	100	15.2

Source: IMPLAN model and authors' calculations

Table 6 shows the distribution of the self-employment income impact during movie production. Only those seven sectors that experience an increase of at least \$35,000 in self-employment income payments are itemized in the table. Combined, these seven sectors account for 89.9 percent of the total impact on self-employment income. The private household sector alone accounts for 74.7 percent of the total impact.

Table 5
Distribution of Wage and Salary Payment Impacts During Movie Production

IMPLAN Sector	Wage and Salary Income Impact	% of Total
Total	\$7,595,000	
Private Households	\$3,691,000	48.6
Hotels and Motels	\$425,000	5.6
Commercial and Institutional Buildings	\$425,000	5.6
Physicians, Dentists, and Other Health Services Providers	\$273,000	3.6
Postal Services	\$213,000	2.8
Other Maintenance and Repair Construction	\$213,000	2.8
Specialized Design Services	\$160,000	2.1
All other	\$2,195,000	28.9

Source: IMPLAN model and authors' calculations

Table 6
Distribution of Self-Employment Income Impact During Movie Production

IMPLAN Sector	Self-Employment Income Impact	% of Total
Total	\$2,858,000	
Private Households	\$2,135,000	74.7
Commercial and Institutional Buildings	\$146,000	5.1
Other Maintenance and Repair Construction	\$71,000	2.5
Physicians, Dentists, and Other Health Services Providers	\$71,000	2.5
Real Estate	\$71,000	2.5
Gasoline Stations	\$37,000	1.3
Specialized Design Services	\$37,000	1.3
All other	\$290,000	10.1

Source: IMPLAN model and authors' calculations

Table 7 shows the distribution of the property income impact during movie production. Only those six sectors that experience an increase of at least \$80,000 in

property income payments are itemized in the table. Combined, these six sectors account for 95.7 percent of the total impact.

Table 7
Distribution of Property Income Impact During Movie Production

IMPLAN Sector	Property Income Impact¹	% of Total
Total	\$1,273,000	
Owner-Occupied Dwellings	\$527,000	41.3
Hotels and Motels	\$193,000	15.2
Real Estate	\$193,000	15.2
Gasoline Stations	\$111,000	8.7
Power Generation and Supply	\$111,000	8.7
Monetary Authorities and Depository Credit Intermediaries	\$83,000	6.5
All other	\$55,000	4.3

1 Property income includes rents, interest payments, corporate profits/dividends, and royalties.

Source: IMPLAN model and authors' calculations

V. Annualized Impacts

The economic impacts presented above are based on the changes in selected measures of economic activity while movie production takes place. Given the Wilmington area's history of motion picture production and the availability of infrastructure, it is likely that more than one "mid-major" movie production could occur during a 12-month time span.

The following analysis assumes that four such productions occur within a 12-month period. It also assumes that there are no overlapping production schedules. That is, only one movie production occurs at a time.

Table 8 shows the total impacts of the four movie productions. As before, all dollar figures are in first quarter 2009 dollars. The impacts can be viewed as “annualized” figures.

Table 8
Annualized Economic Impacts of Mid-Major Motion Picture Production¹
Totals for Four Films

Type of Impact	Direct	Indirect	Induced	Total
Output	\$50,336,000	\$6,344,000	\$17,992,000	\$74,672,000
Employment ¹	570	30	50	650
Wages and Salaries	\$30,380,000	\$1,664,000	\$4,888,000	\$36,932,000
Self-Employment Income	\$11,432,000	\$302,000	\$634,000	\$12,368,000
Property Income	\$5,095,000	\$406,000	\$1,134,000	\$6,635,000
State Sales and Excise Taxes ^{2,3}	N.A.	N.A.	N.A.	\$1,061,000
Local Government Share ^{2,3}	N.A.	N.A.	N.A.	\$354,000
County Property Tax Collections ³	N.A.	N.A.	N.A.	\$2,122,000
(Equivalent) Property Tax Base ^{3,4}	N.A.	N.A.	N.A.	\$499,200,000

¹ The employment impact includes both full-time and part-time employment.

² Each of the three county governments levies a 2.25% sales tax. After debiting a collection fee, state government remits the residual to the county government.

³ The IMPLAN software does not provide separate estimates of direct, indirect, and induced tax impacts.

⁴ The estimate of the size of the property tax base that would support \$2,122,000 in county property tax collections is calculated by dividing the collections by a weighted average county tax rate using the FY 2008-09 value of county taxable property as weights.

Source: IMPLAN model and authors' calculations

Measures of the relative importance of the motion picture industry in the area economy can be obtained by comparing the annualized measures of the industry's impact to averages for the three-county area as a whole. Three such comparisons are made.

V.A. Total Economic Activity

The IMPLAN model produces estimates of gross regional product (GRP), in this case an estimate of the total amount of economic activity produced by all sectors in the three-county economy. This measure is analogous to gross domestic product (GDP) calculated for the nation as a whole. The IMPLAN GRP estimate of \$11.4 billion is in 2006 dollars. Using the implicit GDP deflator to account for inflation between 2006 and early 2009, the comparable 2009 estimate is \$12.2 billion. Given that four motion picture productions support \$74.67 million in economic activity, these productions would support approximately 0.6 percent of total economic activity in the three-county area.

V.B. Income

The average annualized labor income of the employees supported by the production of four “mid-major” motion pictures can be calculated by dividing total labor income by employment. Total labor income is the sum of wage and salary payments and self-employment income payments. This total is \$49.3 million. Thus, the average annualized salary of the 650 jobs that are supported during the movie production is \$76,000. Based on third quarter 2008 North Carolina Employment Security Commission data, the average annual salary across all employment sectors in the three-county region was \$34,400. Using the implicit GDP deflator to account for inflation between the third quarter of 2008 and early 2009, the annualized salary would be approximately \$34,700. Consequently, the average annualized salary of the 650 jobs supported by the motion picture production of \$76,000 is 119 percent above the all-sector estimate, 2.19 times the all-sector estimate.

In addition to wage and salary income and self-employment income impacts, the model provides an estimate of the property income impact (rents, interest payments, corporate profits/dividends, and royalties. Adding these three income measures generates an estimate of the impact on total personal income of \$55.94 million. Dividing the impact on personal income by employment yields an estimate of the impact on per capita personal income of \$86,000. The Bureau of Economic Analysis in the U. S. Department of Commerce generates estimates of county per capita income. The most recent figures available are for 2007. Using 2007 county population estimates as weights, the 2007 weighted average per capita income for the three-county area is \$32,394. Using the implicit GDP deflator to account for inflation between 2007 and early 2009, the 2009 estimate is \$33,800. Consequently, the average annualized per capita income of the 650 jobs supported by the motion picture production of \$86,000 is 155 percent above the per capita income estimate, 2.54 times the overall per capita personal income estimate.

V.C. Property Taxes

The North Carolina Department of Revenue reports that the total value of all real and personal property in the three-county region during FY 2008-09 was \$68.6 billion. Given that the movie productions would support a property tax base of \$499.2 million, the movie productions would support 0.7 percent of the tax base.

V. Summary

This study has analyzed the economic impact of a “mid-major” motion picture production on the economies of Brunswick, New Hanover, and Pender

Counties in Southeastern North Carolina. For the purposes of this study, a “mid-major” motion picture production has a budget of approximately \$25 million.

The study analyzed the impacts of both a single film production and multiple film productions. Although not addressed in the study, other qualitative impacts such as the “visibility” impact of being known as a location with infrastructure to accommodate productions could be as important, as well.

Based on the production of four such films during a calendar year, the study found that motion picture production would support \$74.67 million in economic activity, 0.6 percent of estimated total economic activity in the three-county area. Production activities would support 650 jobs, with an average annual salary of \$76,000, 119 percent an estimate on the average annual salary across all employment sectors in the three-county region. The impact on per capita personal income would be \$86,000, 155 percent above the comparable figure for the entire region. Its contribution to state sales and excise tax collections and the local government share of the same were \$1,061,000 and \$354,000, respectively. Its contribution to county property tax collections was \$2.12 million. The size of the associated property tax base required to generate these property tax collections was \$499.2 million, 0.7 percent of the FY 2008-09 value of the three-county property tax base.

Notes

¹ Wilmington Regional Film Commission, Inc., Wilmington Regional Production Guide, 2009.

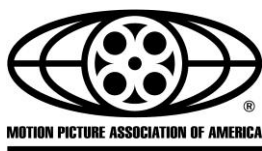
² Indirect effects are the changes in inter-industry purchases as these industries respond to new demands of the directly affected industries. In the present case, the indirect effects are a measure of the re-spending of the

receipts by vendors supplying the motion picture industry. Induced effects reflect changes in spending by households as income changes due to changes in production, in this case changes in movie production.

³ **The sectors shown in tables 2-6 are based on the North American Industrial Classification System (NAICS).**

The Economic Impact of the Motion Picture & Television Industry on the United States

April 2009



A Message from Dan Glickman

On behalf of the Motion Picture Association of America and our six member studios, I am pleased to present the industry's second biennial nationwide economic impact report.

The magic of the big screen is something we all have experienced. We can all recount the unforgettable moments from our favorite movies - scenes that make us laugh, cry, cheer, wonder, and believe. We associate these moments with Hollywood and big stars and big studios. And while these are important and visible pieces of the industry, they don't represent the entire picture.

Even as you read this report, workers in businesses both large and small across America are lending their talents behind the camera, on construction sites and in computer labs, revealing an industry that is:

A diverse job creator: 2.5 million Americans jobs are supported by the motion picture and television industry – costume designers, truck drivers, architects and accountants are but a few examples of the complex combination of workers who collectively make movies.

A community of small businesses and entrepreneurs: Over 115,000 businesses in all 50 states – 81 percent of which employ fewer than 10 people – comprise the motion picture and television industry.

A nationwide enterprise: On-location production, infrastructure development and movie and television-related tourism are contributing to the economies of all 50 states.

A successful exporter of American products: The American motion picture industry carries a positive balance of trade around the world and a \$13.6 billion trade surplus.

For decades, the motion picture and television production industry has been a cornerstone in America's creative economy. Throughout that time, we have pushed the boundaries of technology to improve our product – from silent pictures to surround sound, from black and white film to digital computer animation. Today, we are pushing boundaries again, with purchasing options that give consumers better and more cost-effective choices.

We are committed to keeping our industry at the forefront of the worldwide entertainment market and to ensuring that our contribution to the U.S. economy continues to grow.

Now I invite you to take a peek behind the big screen by reading this report. I believe you will find it is an interesting, informative and entertaining look at an important American enterprise – the motion picture and television industry.

See you at the movies.

Hollywood: The Movie

By Edward Jay Epstein

Hollywood has spent the better part of the last century making movies out of the great inspirational sagas of human history. Ironically, the one epic it has yet to make is one about a uniquely American achievement that has and continues to mesmerize the world: The Rise Of Hollywood. Here is a true *Sturm and Drang* melodrama chock full of fascinating characters from the edges who overcome seemingly impossible obstacles to build a new industry that today defines the world of mass entertainment. The scenario would follow the classic Hollywood three-act formula.

ACT ONE

Fade in on the men who founded the studios of Hollywood. These are self-made and self-educated Jewish immigrants from impoverished backgrounds, who, prior to becoming movie exhibitors, had been ragpickers, furriers, errand boys, butchers and junk peddlers. They are true outliers: Louis B. Mayer, Samuel Goldwyn, Jack Warner, Adolph Zucker, William Fox, Carl Laemmle, and Harry Cohn, who first scraped together money to build arcades and nickelodeons to show movies, then resourcefully expanded them into theater chains, distribution networks, and, finally, studios. In the second decade of the 1900s, they moved their studios to a near desert in California - the tiny incorporated village of Hollywood - a place they could control and build. By the mid-1920s, 57 million people – over half the population - was going to their movies every week.

Yet, the saga is just beginning. In 1927, sound, now married to the picture, is introduced to the world with Al Jolson in *The Jazz Singer*. Even though huge capital is required to add this new dimension to movies, Hollywood - in one of the great technological feats of modern history - converts most of the 21,000 theaters in America to sound, rebuilds its studios to put sound on film, and casts new stars for talkie movies. Despite even the Great Depression of the 1930s, the weekly audience grows to 75 million who go to the movies to see not just feature movies, but newsreels, comedy shorts, action-packed serials and cartoons. A new generation of talent, including such brilliant innovators as Walt Disney, expands its realm to children's entertainment, and color adds to its ability to entertain the public even in the bleak years of the Depression and the grim war years of the early 1940s.

ACT TWO

The second world war has ended; the troops have come home. By 1948, the studio system is at its zenith. Over 90 million Americans go to the movies on a weekly basis, roughly two-thirds of the population. The studios produce over 500 feature movies a year, have all the major stars under iron-clad contract, and employ over 320,000 Americans. In little more than a generation, its founders have literally gone from rags to riches.

But there was an ever-darkening cloud forming: television. Even with its fuzzy black and white pictures, it offers free stay-at-home entertainment, which gradually eats away at its habitual audience. Even with new innovations, such as drive-ins, Cinemascope, 3-D, and surround sound, the entertainment landscape had irreversibly changed. After color TV is introduced in the 1950s, the weekly movie audience drops by 1958 to 40 million. Prophets of doom predict the end of Hollywood is near.

ACT THREE

But the prophets have underestimated the resourcefulness of Hollywood. Its genius had always been adaptation to new circumstances. It is, after all, in the business of entertainment— a medium which thrives on transformation. So Hollywood re-invents itself. The old studio system, with its contractual control of theaters and stars, is dead; long live the new studio system. Unable to depend on a habitual weekly audience, it turns television to its advantage, using national TV advertising to create tailor-made audiences for each and every movie. And, while remaining an

American business, it greatly expanded its reach overseas, creating a second stream of revenue from theaters and television abroad.

The audience of the new Hollywood is not limited to theaters. It finds new sources of revenue in licensing its movies to television, originating prime-time series, renting its movies on home video, putting it on planes via in-flight entertainment and in hotels, turning its characters into toys, and then, with the digital revolution, putting its movies on DVD, Blu-ray, video-on-demand, cell phones, and the Internet. In doing so, it not only kept alive the movie business, but made it central to the world's entertainment economy. With states and municipalities competing with one another for film production, it also continued to create jobs across the nation, supporting employment for 2.5 million people.

But beyond the movies, the money, and the job creation, Hollywood produces another form of wealth: the pictures in our head by which both we, and the world at large, define the phenomenon of American culture. What a movie that achievement would make. FADE OUT

THE END

Report Highlights

The production and distribution of motion pictures and television programs is one of the nation's most valuable cultural and economic resources.

In 2007, the motion picture and television industry was responsible for:

- **2.5 million American jobs;**
- **an average salary of \$74,700 for production employees;**
- **\$41.1 billion in wages to workers in America;**
- **\$38.2 billion in payments to U.S. vendors and suppliers, small businesses and entrepreneurs;**
- **\$13 billion in income and sales taxes; and**
- **\$13.6 billion in trade surplus.**

2.5 Million Diverse Jobs in 50 States

With a payroll of over \$41 billion, the motion picture and television industry is a major private-sector employer. In total, the motion picture and television industry supports 2.5 million American jobs:

- Over 285,000 people are employed in the core business of producing, marketing, manufacturing and distributing motion pictures and television shows, including full, part time and free-lance workers at major studios, independent production companies, and core industry suppliers like film labs, special effects and digital studios, location services, and prop and wardrobe houses dedicated to the production industry, among others. The industry employs workers in every major occupational group, including actors, accountants, agents, animators, camera operators, casting directors, computer specialists, directors, editors, engineers, graphic designers, marketers, producers, special effects, technicians, writers, and many, many more.
- Over 478,000 people are employed in the related businesses that distribute motion pictures and television shows to consumers. This includes workers at movie theaters, video rental operations, television broadcasters, cable companies, and new dedicated online ventures like Hulu and TV.com.
- The motion picture and television industry supports an additional 1.7 million indirect jobs at the thousands of companies doing business with the industry, such as apparel and accessory retailers, car rental and sales dealers, caterers, dry cleaners, florists, hardware and lumber suppliers, and transportation companies, as well as at a wide cross-section of companies doing business with consumers, such as retailers, themed restaurants and tourist attractions.

The average salary of those employed in the core production-related industry was just under \$75,000 in 2007 – nearly 76 percent higher than the average salary nationwide. Including employees on the consumer-facing film and TV distribution side, the average salary of all workers in the motion picture and television industry is 26 percent higher than the average salary nationwide.¹

A Nationwide Community of Small Businesses and Entrepreneurs

One of the most unique characteristics of the motion picture and television industry is its decentralized nature. As of 2008, the motion picture and television industry comprises more than 115,000 businesses around the country – in production to distribution – and 81 percent of these businesses employ fewer than 10 people.² One-quarter of the businesses are sole proprietorships. In essence, the motion picture and television production industry is largely entrepreneurial and dominated by small businesses and individuals. This total includes only those businesses directly involved in making or distributing motion pictures and television shows, and does not include business that do not work with our industry on a full time basis, like lumberyards and florists.

Few industries in the world are as large and yet depend so heavily on an economically diverse work force based on regional networks collaborating on projects. The graphic on the following page illustrates the vast array of individuals vital to bringing a motion picture or television program to fruition.

In addition, the core production industry made \$38.2 billion in direct payments for goods and services to vendors large and small in 2007. The vendors receiving these payments are not only specialized businesses that comprise and exclusively serve the entertainment industry, such as

wardrobe companies and camera equipment firms, including the 115,000 businesses noted above, but also innumerable general suppliers serving many other industries, such as caterers, lumberyards, apparel retailers and florists.

A Contributor to State and Federal Coffers

Communities zealously promote entertainment development because the motion picture and television industry attracts capital, creates a local production-related workforce, and generates tax revenues critical for public needs.

In 2007, just two types of taxes – taxes paid by industry workers and sales taxes on goods and services - generated approximately \$13 billion in public revenues in the United States. This included \$4.1 billion in income taxes at the federal level and \$1.9 billion in income taxes at the state level, along with \$6.4 billion in additional unemployment, Medicare and Social Security taxes, in addition to sales taxes on goods.

Other taxes paid, but that could not be quantified for this study, include corporate income taxes, property taxes and business license taxes. Also not included are tax revenues generated by indirect employment.

A Successful Exporter of American Products

The American motion picture and television production industry remains one of the most highly competitive around the world. In 2007, the enduring value and appeal of U.S. entertainment around the world earned \$15 billion in audiovisual services exports, a 23 percent increase over 2006 and over 50 percent more than in 2003. The 2007 total is the highest since tracking began in 1992.

Moreover, this industry is one of the few that consistently generates a positive balance of trade. In 2007, that surplus was \$13.6 billion, or 10 percent of the total U.S. private-sector trade surplus in services. The motion picture and television surplus was larger than the combined surplus of the telecommunications, management and consulting, legal, and medical services sectors, and larger than sectors like computer and information services and insurance services.³

The international market is vital for American motion picture and television product. MPAA member companies' international revenue has more than doubled in the last dozen years and nearly half of revenue is now derived from outside the U.S., making these international markets vital to American jobs.

International audiences continue to appreciate American products, but this industry also continues to innovate and increase its success internationally by co-producing films and television shows with foreign companies, acquiring and distributing foreign-made films and television shows in the U.S. and around the world, and making strategic investments overseas.

Understanding film and television credits

The reason film credits can be so long is that film-making draws on the efforts of numerous people over an extended period of time. The process of taking a film or television show from idea to audiences involves several key phases and a wide assortment of skills. Based on a typical live action film, following are a few examples of workers involved in a film. Many of these workers are involved on all or multiple phases of the production.

1. DEVELOPMENT

Coming up with an idea, writing a script and pitching it.

Agents	Business managers	Investors	Personal Assistants	Screenwriters
Assistants to the producers	Consultants	Lawyers	Producers	Studio executives
	Executive producers	Line producers	Publicists	

2. PREPRODUCTION

Developing, planning and visualizing the idea. Preparing a budget, hiring crew members, and making a schedule.

Art department assistants	Choreographers	Costume supervisors	Location assistants	Props masters
Art department coordinators	Concept artists	Costumers	Location managers	Set designers
Art directors	Construction coordinators	Dialogue coaches	Paint foremen	Set decorators
Artists	Construction electricians	Directors	Production assistants	Set dressers
Assistant directors	Construction first aid	Directors' assistants	Production designers	Set staff assistants
Carpenters	Construction foremen	Directors of photography	Production managers	Storyboard artists
Casting directors	Construction grips	Financial executives	Props builders	Stunt coordinators
	Construction workers	Illustrators		Tailors/seamstresses
	Costume designers			Wardrobe

3. PRODUCTION

Shooting scenes, working with cast, locations and reviewing footage.

Accounting clerks	Electricians	Payroll accountants	Property workers	Stills photographers
Actors	Extras	Picture car coordinators	Script supervisors	Stunt performers
Animal handlers	Extras casting coordinators	Picture car drivers	Set strike workers	Swing gang workers
Assistant accountants	First aid workers	Picture editors	Sound editors	Teachers/welfare workers
Assistant directors	Gaffers (lighting)	Production accountants	Sound technicians	Technical advisors
Boom operators	Grips (set operations)	Production coordinators	Special effects coordinators	Transportation coordinators
Camera loaders	Hair stylists	Production sound mixers	Special effects supervisors	Transportation captains
Camera operators	Makeup artists	Property masters	Special effects technicians	
Caterers	Office coordinators		Standby painters	
Cinematographers	On-set dressers			
Drivers				

4. POSTPRODUCTION

Editing the film, adding titles, music and special effects.

Audio recording engineers	Dubbing editors	Film and video editors	Musicians	Special effects technicians
Composers	Editing room assistants	Lab technicians	Projectionists	
			Sound designers	

5. DISTRIBUTION

Taking the finished product and bringing it to theaters, home video, television, online and other venues for audiences to see it.

Accountants	Distribution executives	Licensing executives	Partnership developers	Sales staff
Advertising executives	Financial managers	Marketers	Publicists	

Production around the country

All of the 50 states and the District of Columbia have film and television production activity. Throughout this report there are several spotlights highlighting the positive economic impact of on-location production on communities around the nation. California and New York, the historical centers of film and television production activity, are still the bellwether states. However, production activities are increasing in many key states. Following are the top production states outside of California and New York based on several factors: amount of productions industry-wide; production employees and wages; and the total number of vendors and vendor payments made by MPAA studios during 2007:

Top 10 Production States outside CA & NY⁴

Illinois
Texas
Florida
Georgia
Pennsylvania
New Jersey
North Carolina
Louisiana
Tennessee
Massachusetts

States to Watch

Michigan
Arizona
Connecticut
New Mexico
Utah

States to watch are based on the above factors, as well as 2008 production levels, tax incentives, and economic impact of the industry.

Making an impact in states

In 2007 and 2008, film and television production and distribution contributed to the economies of all 50 states and the District of Columbia. In fact, 40 states and DC have found production activity to be so beneficial that they have enacted specific incentives to increase production in their states (denoted with an asterisk below). Following is information from state film commissions and industry sources on local production activity in 2007 and 2008, examples of recent productions in each state, and state-by-state details on wages paid by the motion picture and television production and distribution industry in 2007, the most current data available at the time of printing.

State	Movies and TV filming in 2007	Movies and TV filming in 2008	Recent Examples (2008 in bold)	Wages Paid by Motion Picture & TV Industry in 2007
Alabama*	14	21	Final Destination: Death Trip 3D	\$214,929,950
Alaska*	2	4	Corporate Headquarters, Deadliest Catch (TV) , Into the Wild	\$24,975,280
Arizona*	147	106	Away We Go, Middle Men (TV) , The Kingdom, Kids in America (TV)	\$280,873,230
Arkansas*	2	5	Chasing the Dragon, 17 Kids & Counting (TV)	\$72,381,540
California*	529	480	American Idol (TV), Angels & Demons, G.I. Joe: The Rise of the Cobra , 24 (TV), Frost/Nixon	\$16,328,697,760
Colorado*	14	16	NowhereLand, E-Vet Interns (TV) , The Bucket List, The Prestige	\$474,326,920
Connecticut*	45	31	Indiana Jones and the Kingdom of the Crystal Skull, Revolutionary Road , College Road Trip	\$505,510,030
Delaware	1	1	Detox , National Treasure: Book of Secrets	\$15,862,410
District of Columbia*	36	21	Night at the Museum: Battle of the Smithsonian, Bones (TV) , Get Smart, The Bourne Ultimatum	\$444,379,000
Florida*	41	35	New in Town, Burn Notice (TV) , Ace Ventura 3	\$1,470,812,940
Georgia*	82	92	Road Trip II, House of Payne (TV) , Stomp the Yard	\$1,233,900,560
Hawaii*	22	18	Lost (TV), The Informant , Forgetting Sarah Marshall, Pirates of the Caribbean: At World's End	\$101,539,030
Idaho	4	3	Norman Waiting, Vagabond Lane, Baby Borrowers (TV)	\$61,509,810
Illinois*	72	38	Judge Mathis (TV), Eagle Eye , The Dark Knight, ER (TV)	\$1,054,732,960
Indiana*	4	9	American Teen, Made (TV)	\$274,702,220
Iowa*	3	7	Ticket Out, South Dakota	\$91,519,090
Kansas	3	9	My Own Love Song , Bunker Hill	\$110,043,280
Kentucky	5	6	Jefferson Davis: An American President (TV)	\$142,103,790
Louisiana*	54	56	The Open Road, Cirque du Freak, Imagination Movers (TV) , The Curious Case of Benjamin Button	\$316,826,550
Maine*	9	2	Shutter Island	\$80,428,020
Maryland*	10	7	My One and Only , Step Up 2: The Streets, The Wire (TV)	\$494,769,410
Massachusetts*	15	27	Paul Blart: Mall Cop, Surrogates , The Game Plan	\$495,900,770
Michigan*	11	43	Gran Torino, Prayers for Bobby (TV) , Semi-Pro	\$523,910,450
Minnesota*	4	14	A Serious Man, Transylvania Television	\$340,791,420
Mississippi*	3	9	Austin's Attic, M for Mississippi	\$24,853,150
Missouri*	10	14	The Apology Dance, Works in Progress , Farmer Wants a Wife (TV)	\$304,641,120

State	Movies and TV filming in 2007	Movies and TV filming in 2008	Recent Examples (2008 in bold)	Wages Paid by Motion Picture & TV Industry in 2007
Montana*	47	51	My Sister's Keeper, Modern Marvels (TV) , Taking Chance	\$36,241,200
Nebraska	9	1	For The Benefit of Mr. Buffett , Yes Man	\$15,472,270
Nevada	234	264	Race to Witch Mountain, The Bachelor (TV) , What Happens in Vegas	\$170,614,550
New Hampshire	15	29	Mystery Team, The American Experience: We Shall Remain (TV)	\$86,743,230
New Jersey*	26	38	The Wrestler , The Sopranos (TV)	\$763,357,780
New Mexico*	36	47	Terminator Salvation, Breaking Bad , Wild Hogs, No Country for Old Men	\$118,798,420
New York*	371	351	Confessions of a Shopaholic, Saturday Night Live (TV) , Enchanted, Duplicity, I Am Legend	\$7,420,591,410
North Carolina*	43	26	Nights in Rodanthe, One Tree Hill (TV) , The Guardian	\$175,884,300
North Dakota	4	4	Kristen Dunst/Jacob Soboroff Documentary , Dangers from Within	\$27,423,280
Ohio	8	6	The Soloist , Spider-Man 3	\$499,442,690
Oklahoma*	2	6	Barking Water , Four Sheets to the Wind, Saving Grace (TV)	\$154,530,790
Oregon*	6	9	Twilight, Without a Paddle: Nature's Calling , Mr. Brooks	\$224,782,510
Pennsylvania*	57	52	Marley & Me, She's Out of My League , Baby Mama	\$732,182,650
Rhode Island*	23	21	Brotherhood (TV) , Underdog, Dan in Real Life, 27 Dresses	\$48,395,970
South Carolina*	6	9	Nailed, Army Wives (TV) , Leatherheads	\$127,054,190
South Dakota	18	39	Rez Bomb, Dinousar Dig (TV)	\$6,117,790
Tennessee*	30	26	Can You Duet (TV), Gone Country (TV), Hannah Montana: The Movie	\$553,752,830
Texas*	134	115	Open Season 2, Friday Night Lights (TV) , There Will Be Blood, Prison Break (TV)	\$1,695,394,580
Utah*	28	47	High School Musical 3: Senior Year, Dogtown (TV) , Unaccompanied Minors, High School Musical 2	\$173,407,640
Vermont*	10	2	Dumping Lisa, Moonlight & Mistletoe	\$27,996,120
Virginia*	29	31	Body of Lies, Code Breakers (TV) , John Adams	\$610,258,250
Washington*	11	13	Traveling , The Last Mimzy	\$321,861,930
West Virginia*	32	25	The Road to Emmaus, PA , We Are Marshall	\$49,836,970
Wisconsin*	4	25	Nephilim, The Watch (TV)	\$231,803,610
Wyoming*	1	11	The Real Cowboys (TV), This American Life (TV) , Flicka	\$4,794,840

Filming data provided by local film commissions, and supplemented with data from industry sources where necessary. Methodology used by each commission varies, and efforts were made to harmonize to the greatest degree possible. Figures do not include commercials, sporting events, student films, or local-only programming.

Leatherheads in the Carolinas

The film *Leatherheads* was filmed in North and South Carolina during the winter and spring of 2007, covering communities in and around Greenville, South Carolina, as well as Charlotte, Winston-Salem and Statesville, North Carolina. Over two months of shooting, and several more of preparations and wrap-up, the *Leatherheads* production paid more than \$1.7 million in total wages to local cast, extras, crew and other employees in South Carolina, and \$2.3 million in North Carolina. The film employed 4,720 local residents in South Carolina and 6,745 in North Carolina. Local businesses, including hotels, car rental outlets, hardware stores, dry cleaners and caterers, received payments of nearly \$3 million in South Carolina, and just under \$2.5 million in North Carolina.

Behind the numbers are countless stories of collaboration, from the generous support from the small town of Greer, South Carolina, with its period-perfect storefronts; to the historic Vance Hotel in Statesville, North Carolina; to local real estate agents in South Carolina, who delayed construction at the Calhoun Hotel in South Carolina so filming could occur prior to its conversion into condominiums; and to the North Carolina train museum, which provided the picture-perfect trains in the film.

Spotlight

On-Location Production is Good for America: Messages from Key Policymakers

"Virginia has always recognized the positive economic impact that film production has on the state and local economies--that's why the Commonwealth has made it a priority to recruit and attract film and television production. Virginia will continue to look at conventional and innovative ways to attract additional film and television production--and the associated benefits in terms of jobs and economic growth.

The Emmy Award winning *John Adams* miniseries was filmed in Virginia in 2007 and added \$80 million in economic impact and 2,000 jobs to the state while stimulating the local economies where it was filmed."

- Commonwealth of Virginia Governor Timothy M. Kaine

"Georgia's excellent talent base and outstanding locations make our state a very desirable place to film. Our new legislation puts in place the economic cornerstone that will encourage producers to convert that desire into action."

-Georgia Governor Sonny Perdue

"Chicago is one of the best cities in the world to film television and movie productions because of our city's incredibly picturesque settings, talented actors, directors and crew combined with the commitment from our city and state governments.

Increased production creates jobs for the hard-working people of our city – not only actors and crew members, but also caterers, electricians, truck drivers and all the others who devote their talents and skills to the project.

For example, when Warner Bros. filmed *The Dark Knight* in Chicago, it generated a record \$40 million in revenue, employed more than 4,000 people and purchased goods and services from over 300 vendors.

I'm proud that Chicago is able to meet the creative needs of the productions while providing people with jobs in this dynamic and growing industry."

-Chicago, Illinois Mayor Richard M. Daley

"We recognize the enormous positive impact motion picture and television production can have on creating jobs and revenue to small businesses across the United States. That's why I am interested in continuing to work with the legislature on how to make Kentucky an even more attractive venue for the film industry. In these challenging and uncertain times for the economy, the creation of movies and television programs can potentially be a bright star on the horizon for the Commonwealth."

-Kentucky Governor Steve Beshear

"By enacting one of the most competitive film incentive packages in the nation we are growing a new job-creating industry in Michigan. As we continue to work to diversify Michigan's economy, we are proud to be at the heart of the film renaissance and we look forward to continued robust growth in Michigan's film industry."

-Michigan Governor Jennifer M. Granholm

"The film and TV industries are crucial to New York State's economy, contributing an estimated \$7 billion annually. In 2008 we raised the New York State Film Production Credit to 30% of qualified costs, three times larger than the credit it replaced. As a result more than 60 feature films took advantage of our new incentives, 20 television pilots and 30 television show productions. These new projects will spend more than \$2 billion in our great state. The industry as a whole is a vital economic engine for our state, luring tourists and employing more than 100,000 people. From Montauk to Niagara Falls and all points in between, New York State is home to some of the most desired and diverse filming locations across the country."

-New York Governor David A. Paterson

"Texas, more so than most states, has enjoyed a long history of on-location filming. For more than 50 years, we have seen economic benefits flow to our workforce and especially to the small businesses serving the industry, in all parts of the state. Now, with more than 40 states offering incentive programs, we are working to become more competitive, to bring these proven benefits back to Texas. I am proud of our production industry, and will do everything I can to preserve this essential part of Texas' economy."

-Texas Governor Rick Perry

"More than 100,000 local New Yorkers rely on the behind-the-scenes jobs that are created when film and television productions shoot in our City. This past season alone, we hosted 17 primetime television shows, with each show employing 1,000 to 2,800 people per season. In addition, 4,000 local businesses reap the benefits of this production business, and that includes lumberyards, hardware stores, dry cleaners, and restaurants. Films and television shows also help attract millions of tourists to our City, and all of them spend money in our local businesses. All told, the film and television industry generates about \$5 billion each year in local economic activity, making it one of our most important – and exciting – industries."

-New York City Mayor Michael R. Bloomberg

"Oregon has been able to attract more production to the state through the Oregon Production Investment Fund and Greenlight Oregon. In 2003, we created the Oregon Production Investment Fund, which offers a financial incentive to qualified productions. In 2005, Greenlight Oregon was created, giving the state's film office a package of incentives that has been instrumental in making Oregon a serious player in the competition for major film and television productions. These productions create jobs and generate millions of dollars in economic activity."

-Oregon Governor Ted Kulongowski

"The motion picture and television industry helps drive California's diverse economy, employing over 200,000 Californians and generating more than \$35 billion in economic activity. And the reach of production goes beyond the people directly employed by the industry, affecting businesses large and small throughout our economy. We value the production industry not only for its contribution to our economy in these challenging economic times, but also for its creative and entrepreneurial spirit – for which California is known throughout the world."

-California Governor Arnold Schwarzenegger

"Los Angeles is proud to be America's creative capital and the undisputed home to the motion picture and television industry. The stories of Hollywood reflect the best talents and contributions of our nation's most inventive and innovative minds. And there is no doubt that the entertainment industry will remain a strong and thriving engine for our local economy. From the mega-stars of the silver screen to the makeup artists, costume designers, stage hands, and sound engineers behind-the-scenes, LA will continue to offer an open, accessible, and welcoming set for this iconic industry."

-Los Angeles, California Mayor Antonio Villaraigosa

Surrogates in Massachusetts

The film *Surrogates*, based on the comic book series of the same name, was filmed in Massachusetts during a 24-week period. The production spent \$21 million in Massachusetts with hundreds of local vendors, including dry cleaners, lumber suppliers, hotels, restaurants, rental car services, furniture rental services and retailers, crane companies, and local labor. *Surrogates* hired hundreds of local crew including office staff, drivers, electricians, grips, and carpenters, and over 2,000 background locals as extras. In the many cities around the state where *Surrogates* filmed, upgrades were often made to locations used. For example, the production spent thousands of dollars to upgrade offices, a phone system and a warehouse in Woburn that are currently being used by local businesses.

Shutter Island in Maine and Massachusetts

Shutter Island, based on the novel of the same name by Dennis Lehane, was filmed in locations in and around Bar Harbor, Maine and Boston, Massachusetts during 2008. During 18 total days on location in Maine, including three days of shooting, the *Shutter Island* production spent nearly \$170,000 with various local vendors. The production encompassed over five months on location in Massachusetts, including 89 shooting days. During that time, over \$22 million was spent in the local economy, including \$8.3 million on payroll – employing 460 crew members, 15 actors and 478 extras -- and \$11.4 million on local vendors. These included crane and scaffolding vendors like Marr Equipment, NES Rentals and United Rentals, which provided the scaffolding and cranes that were required on almost every day of production; and building supplies vendors like Burnett & Moynihan and Lynn Lumber, which provided materials for extensive construction projects, like the renovation and outfitting of a large medical facility.

Shutter Island mobilized a strong source of production specific services from Massachusetts, including production equipment such as cameras from Boston Camera and generators from All State Power & Control Inc.; production facilities, including tent and warehouse rental; transportation like crew car rental and local boating; and of course, significant local employment of crew, actors and extras. For members of the production that came from out of state, \$2.6 million was spent on local hotels, including The Intercontinental Boston, Hilton Dedham and Residence Inn Dedham. These visitors also impact local business in the proximity, patronizing local health clubs and restaurants, including Benjamin's Restaurant in Taunton, which became a frequent dining choice for Martin Scorsese and friends, and That's Amore Brick Oven Pizza, which fed the production crew.⁵

Spotlight

Investing in infrastructure and community development

In addition to direct entertainment production payrolls and expenditures, the motion picture and television industry actively invests in infrastructure and facilities that have a positive effect on community development and local real estate markets. Following are a few samples of such capital projects.

- The multi-million dollar film and TV studio, Tyler Perry Studios, opened in **Atlanta, Georgia** in October 2008. The 30-acre studio features over 200,000 square feet of studio and office space, including five soundstages.⁶
- The \$45 million Celtic Media Centre, being constructed on a 20-acre lot in **Baton Rouge, Louisiana**, includes 11,000 square feet of stage space, 6,000 square feet of office space, and 4,000 square feet of post-production space. Raleigh Studios Baton Rouge, housed in the Celtic Media Centre, is also constructing a new studio.⁷
- Construction on Norristown Studios at Logan Square in **Norristown, Pennsylvania** is expected to be completed in 2009. The 280,000 square-foot production facility will have eight sound stages, post-production facilities, and 180,000 square feet of support space, including a vocational school to be used by local universities.⁸
- Twentieth Century Fox opened a five-story office building on its **Century City, California** lot in 2006 and the studio is nearing completion on another office building and parking facility.⁹
- Spiderwood Studios, being constructed on 200 acres in **Bastrop, Texas**, to include facilities for set and prop design and construction, sound stage, production offices, and back lot, was close to finishing the first phase of construction in December 2008.¹⁰
- EUE/Screen Gems Studios in **Wilmington, North Carolina** broke ground on a new 37,500 square-foot sound stage (Stage 10) on its 50-acre studio lot in September 2008. Stage 10 will feature a 60-foot-by-60-foot indoor water tank.¹¹
- Nu Image/Millennium Films broke ground on a new studio in **Shreveport, Louisiana** in April 2008. The Millennium-Ledbetter Film Studio, which will be built on 6.7 acres and will eventually expand to 20 acres, will accommodate up to six productions and employ up to 500 production personnel.¹²
- Plymouth Rock Studios is building a \$488 million, 240-acre film and television studio complex in **Plymouth, Massachusetts**. The studio complex will include 14 sound stages, a 10-acre back lot, production offices, post-production facilities, a theater, offices, an amenity village, and a 300-room hotel. Plymouth Rock Studios, which is expected to create over 2,000 jobs, will also house M.I.T. Media Laboratory's new Center for Future Storytelling.¹³
- The G-Star School of the Arts for Motion Pictures and Broadcasting in **West Palm Beach, Florida**, which has a motion picture studio on campus where over 20 feature films have been produced, is building an \$8 million sound stage to be completed in Fall 2009.¹⁴

Albuquerque Studios

By Jeremy Hariton, Albuquerque Studios

The Albuquerque Studios opened on June 1, 2007. At a cost of \$91.5 million, the entire facility was privately financed and none of the investment was subject to the rebate incentive offered by the state of New Mexico. The studio includes eight sound stages of 18,000 and 24,000 square feet, which can be paired into spaces that double in size, 95,000 square feet of production office space, and 70,000 square feet of mill space. The overall project consists of over 400,000 square feet on 28.1 acres.

Over the initial 20 months of operation the studio has played host to two television series; *In Plain Sight* and *Breaking Bad* as well as four feature films; *The Spirit*, *Game*, *Terminator Salvation: The Future Begins* and *The Book of Eli*. These productions have created over 2,600 high paying production jobs and over \$221.5 million in direct spending in the state. Along with the infrastructure cost The Albuquerque Studios has generated over \$313.0 million in its short 20-month existence. The Albuquerque Studios has paid over \$7 million in gross receipts tax to the state over its first 20 months of operations and pays an estimated \$600,000 in property taxes annually.

- Capital Studios (formerly Sunset Gower) recently completed a \$40 million six-story, 96,000 square-foot building to house post-production operations of Technicolor Inc on the 15-acre Sunset Gower Studios lot in **Los Angeles, California**.¹⁵
- SHM Partners is pursuing plans to build Kapolei Studios on a 22-acre site on the island of Oahu in **Hawaii**. The studios will include four 18,000 square-foot sound stages; 60,000 square feet of office, dressing room, set construction and production office space; a student film annex for University of Hawaii's Academy of Creative Media; a commissary/screening room facility; and a backlot with workable sets and retail venues.¹⁶
- Sony Pictures Entertainment is constructing two four-floor buildings on its **Culver City, California** lot of 125,000 and 96,000 square feet, to be completed by the summer of 2009.¹⁷
- Groundbreaking is expected to occur in 2009 for Santa Fe Studios located in **Santa Fe, New Mexico**. The studio will consist of 10 sound stages on 500,000 square feet.¹⁸
- In March 2009, Evergreen Films opened a \$10 million production and post-production facility in **Anchorage, Alaska**. They are looking for partners to build a high-end sound stage and studio facility in Anchorage.¹⁹
- The \$125 million Commonwealth Studios, set to break ground in **Moorpark, California** in April 2009, will offer 14 soundstages on a 37-acre lot, including an exterior backlot featuring city streets plumbed for rain and fire effects.²⁰
- The Museum of the Moving Image, dedicated to the art, history, technique, and technology of film, television, and digital media, in **Astoria, New York** broke ground in February 2008 on a \$65 million expansion to the Museum that will double its size and is expected to be completed in late 2009.²¹
- The Jacob Burns Film Center in **Pleasantville, New York** opened a new 27,000 square-foot Media Arts Lab in December 2008, containing 16 editing suites, five film studios, an animation studio, a recording studio, a sound stage, a library, and a 60-seat screening room.²²

Building in Michigan

Michigan's aggressive film production attraction efforts are expected to create 5,993 new jobs in Michigan, including 4,066 new film, animation and programming jobs. The new efforts include two major motion picture infrastructure projects, leading to investment of more than \$156 million in Detroit and Pontiac. Wonderstruck Studios' \$85.9 million venture, to be known as Detroit Center Studios, will produce computer-generated (CG) visual effects and animated content, while Motown Motion Pictures' \$70 million venture in Pontiac will be both a film studio and a production services company in a 600,000-square-foot development with nine sound stages.²³ Both projects will result in permanent production-related jobs in Michigan, and are among numerous infrastructure projects in Michigan, like the City Center Studios project in **Lansing, Michigan**, which will include two 24,000 square-foot sound stages, production offices, and post-production and screening facilities.²⁴

The Industry's Eco-Friendly Building Practices

The motion picture and television production industry has developed and adopted best practices for reducing waste and carbon emissions, and encouraging recycling and energy conservation, in all areas of film and television production. For over a decade, the industry has annually diverted more than 50 percent of studio sets and other solid waste from landfills to reuse and recycling. In 2008, the amount diverted was over 20,000 tons, which prevented the emission of nearly 34,000 metric tons of greenhouse gasses - the annual equivalent of removing over 7,000 cars from the road.

The eco-friendly efforts extend beyond recycling movie and TV sets, to the studios' major building projects, where they are constructing new buildings according to Leadership in Energy and Environmental Design (LEED) guidelines; installing water-conservation measures, and receiving energy from alternative sources such as several major solar energy installations generating major kilowatts of power for the facilities.

The Dark Knight in Chicago

The Dark Knight, which was filmed in Chicago during the summer of 2007, spent over \$35 million in the local economy. The 65-day shoot directly employed 900 crew members, 88 actors and 7,500 man/days of extras, who were paid \$18 million in wages. It also generated \$17 million in payments to 793 local vendors, including more than \$3 million in spending on hotels, \$1 million on catering, \$1 million on office rental and equipment, and \$980,000 on lumber and other set materials.

Although there were many film-industry specific vendors, like lighting equipment or film processing, the vast majority of local Chicago vendors that provided service for *The Dark Knight* production were from outside the industry, illustrating the widespread effect. NAPCO Steel provided more than 60 tons of steel for sets and special effects stunts – including building a steel cylinder that was embedded in the street that popped out and flipped over a semi tractor-trailer. Service Glass removed existing glass walls and doors in both the IBM Building and Illinois Plaza and replaced them with breakaway glass for stunt sequences. Gatwood Crane provided the industrial-sized cranes for a key scene. North Suburban Asphalt completed road work for the production and a local lumber supplier provided much of the production's needs for set construction. These are a few examples of the vital service provided by local Chicago vendors, and the far-reaching effects of one two-month film shoot.

Spotlight

Promoting Tourism

An increasing amount of film and television production is taking place throughout the United States, leading to a positive impact on tourism as fans are eager to visit locations featured in movies and television shows. Filming locations are highlighted in DVD Special Features and online sites with behind-the-scenes information, making it easier for film fans to identify destinations that they want to visit. A study published in the *Journal of Travel Research* analyzed the effects of film tourism on a variety of different locations throughout the United States, and found that a location featured in a successful film can see an increase of up to 75 percent in tourism the year after the film is released.²⁵

The effect from individual films can vary and research has shown that collaborative campaigns between the tourism and film industries are the most powerful way to induce film tourism.²⁶ Tourism organizations can use films as springboards for marketing campaigns in order to promote their city or attraction. The Santa Barbara Conference and Visitors Bureau effectively promoted Santa Barbara wine country by offering visitors a detailed map of locations from the film *Sideways*. As a result, certain Santa Barbara County wineries saw a 300-percent increase in visitors a year after the film was released.²⁷

Companies are also offering professional tours of film locations in cities like Boston, Washington D.C. and New York City so visitors can visit the sites where scenes from movies like *Good Will Hunting*, *Wedding Crashers*, and *The Sopranos* were filmed.²⁸ According to On Location Tours, Inc., the largest such TV and movie locations tour company, the *Sex and the City* tour in New York City was already drawing 1,200 visitors per week even prior to the release of the film in 2008.

Certain destinations can see increases in tourism long after the film is released. Twenty years after the release of *Field of Dreams*, the town of Dyersville, Iowa still gets 65,000 tourists a year to visit the cornfield in the film.²⁹ The town of Preston, Idaho, featured in *Napoleon Dynamite*, hosts an annual Napoleon Dynamite Festival for tourists visiting because of the film.³⁰ A survey completed by the New Mexico Tourism Department indicates that film-related tourism accounted for an estimated 5.5 percent of total New Mexico tourism expenditures in 2008, due to visitors' interest in seeing where movies like *No Country for Old Men* and *3:10 to Yuma* were filmed, even though those films did not specifically identify New Mexico locations.³¹ Certain locations in Alaska saw a 100-percent increase in tourism as a result of the film *Into the Wild*.³²

***Sex and the City* and New York City**

The television show *Sex and the City*, based on the novel by Candace Bushnell, was on location in and around Manhattan for six seasons from 1998 to 2004. In the last few months of 2007, a feature film based on *Sex and the City* went on to film in New York City. Both the show, which aired on television and was released on DVD all over the world, and the film, which opened in theaters around the world during 2008 and was recently released on DVD, were unparalleled advertising for the city of New York and its attractions. Locations featured in the show, such as hotels, shops, bakeries and restaurants, see traffic from fans and have made special movie-related packages, as have local tour companies.³³ NYC & Company - New York City's official tourism marketing organization - used the film as a cost-free way to promote the city, highlighting the film and its locations on its website, and launching international promotions to amplify the impact of the film. George Fertitta, CEO of NYC & Company, says, "*Sex and the City* has been one of the all-time great commercials for the city of New York. There's all of the fabric and the texture and the vibrancy of New York. ... It shows everything: from a great shopping component to a nightlife component, to a restaurant component."³⁴

***Nights in Rodanthe* and the Outer Banks of North Carolina**

By Carolyn McCormick

Managing Director, Outer Banks Visitors Bureau

The motion picture *Nights in Rodanthe*, based on the bestselling novel by author Nicholas Sparks, was shot on location in the Hatteras Island village of Rodanthe, in the Outer Banks of North Carolina. Pictured here is the real oceanfront cottage that is portrayed as the fictional Inn at Rodanthe. The filming of *Nights in Rodanthe* employed 160 local crew member and 248 local talent and extras, and generated in-state production spending of over \$10 million, with \$3 million on Hatteras Island and the village of Rodanthe.

But the movie's impact goes far beyond filming. With its release in theaters, on video and on television, the world gets to see the beauty of the Outer Banks on an epic scale. The Outer Banks Visitors Bureau is promoting tourism based on movie scenes and nearby locations through a special *Nights in Rodanthe* tour, and ads featuring a specific location and a caption referring to its presence in the motion picture. Since the movie's release in theaters and the publicity around the movie, traffic to Hatteras Island and inquiries to visit the locations of the movie have increased by 20 percent. The Visitors Bureau's movie-related websites have received tens of thousands of new visitors. We anticipate visitors from around the world in 2009 and have already seen many taking the trip this last fall of 2008.

The economic climate has made the competition for the tourism dollar even more challenging. Having a major motion picture filmed on location has enabled the Outer Banks and the people of the Outer Banks to be introduced to the world. As the COO of the public authority responsible for the core of our economy, which is tourism, this opportunity to have Hollywood spend time here and feature our destinations could not have come at a better time. The experience and challenges that we all faced during filming will forever be a highlight of my 22-year career. And for that I thank the world of motion pictures.

Marley & Me in Florida and Pennsylvania

The film *Marley & Me*, based on the memoir of the same name by John Grogan, was filmed on location in two states: Florida, where John and his wife began married life; and in Pennsylvania, where the Grogan family later resided, and where they live to this day. These settings are critical to Grogan's book and to the film.³⁵ The production spent 113 days on location in Florida, injecting \$10.1 million into the local economy, including \$1.1 million at seven different hotels including The Mutiny Hotel and The Sonesta Hotel & Suites and \$5.1 million in wages to 2,020 local personnel hires. Local vendors included C.F.R. Coastal Enterprises, which provided soundproofing for the set, and Foliage Express, Inc. and Shell Lumber & Hardware, which provided set construction materials. In Pennsylvania, \$2.2 million was spent over 36 days in production, and 480 people were hired locally. Two local residents making an appearance in the film were the Grogans themselves, who appeared in the film as participants in the obedience school sequence.

In addition to the 2,500 additional cast, extras, crew, security, off-duty government personnel, and office personnel hired locally by the production, the film features 22 even more remarkable employees – the 22 dogs used to portray Marley, who ages thirteen years in the story. Since films shoot scenes out of sequence, eleven Marley puppies were needed, while the other eleven Marleys ranged in age from six months to fourteen years. The complexity of coordinating these 22 employees and their on-screen appearances kept the animal trainers and handlers extremely busy. They spent weeks training the dogs, acclimating to the shooting locations, and polishing their "skills," all of which was observed by American Humane animal safety representatives, who noted that the best part of the experience was seeing some of the shelter dogs used in the film adopted following production.³⁶ One of the Marleys was adopted by the author³⁷, but the Marley puppy who seemingly took his "training" most to heart belongs to a woman in West Kendall, Florida, who has her hands extremely full with a Marley just like the original.³⁸ The film may have a positive effect on the dog training industry – the Association of Pet Dog Trainers used the film as an opportunity to promote effective dog training and qualified trainers around the country.³⁹

Spotlight

Online Production and Distribution

Most people are familiar with watching trailers, finding movie tickets and buying DVDs online, but the Internet is an even more exciting space for distributing motion picture and television, on-demand, wherever and whenever the viewer wants it. Motion picture and television producers are providing full-length television shows and films at countless websites – over 50 in the U.S. alone – for people to view, to rent, or download to own. The sites are not only from telecom and online players like Apple, but television networks like ABC, pay television operators like HBO, social networking sites like MySpace, retailers and retailers like Amazon and Netflix, gaming systems like PlayStation and Xbox and new ventures devoted entirely to this space like Hulu and TV.com.

Such websites are growing in popularity. More than 75 percent of people online view videos. A few examples of popular sites for films and TV shows are:

ABC.com

In the first year of the broadband player launched on ABC.com (September 2006-2007), users watched over 140 million episodes of ABC primetime series.⁴⁰ As of January 2009, that number is now over 500 million episodes.⁴¹

Apple - iTunes

As of October 2008, the iTunes store has sold over 200 million television episodes since inception three years earlier, including more than 1 million high definition episodes in the one-month since launch.⁴² iTunes customers are also renting and purchasing over 50,000 movies online every day.⁴³

Hulu

Hulu, which just launched to the public in March 2008, was the 6th ranked website in the U.S. in videos viewed by December, with 241 million videos viewed, and 25 million unique viewers⁴⁴ and reached the number two position by February 2009.⁴⁵

Nickelodeon – Nick.com

Nick.com delivered 69 million streams and 2.5 million unique video viewers in February 2009. Users viewed an average of 39 minutes of videos on the site.⁴⁶

Xbox & Netflix

Xbox movie and television sales online increased 174% between December 2008 and January 2009, compared to December-January of last year.⁴⁷

Xbox Live users watched 25 million hours of movies and TV shows from Netflix on their Xbox in the three months following launch in November 2008.⁴⁸

Marketing and distributing movies and television shows online not only meets consumer demand, but creates new jobs and demand for technology innovation in the areas of engineering, software development, web design, advertising and marketing, legal and more. It even creates new opportunities for professional production specifically for the Internet, such as “webisodes” produced by major networks from their shows, or new content provided by online-only production companies.

Pioneering technological advancement in storytelling and distribution

The American motion picture and television industry is a world leader in developing and deploying new technologies, providing highly-sought after jobs at the cutting-edge intersection of entertainment and technology. Whether it is pioneering and expanding the field of computer animation and computer-generated imagery (CGI) for film, pursuing advanced 3-D display, or utilizing the highest quality audio technology, the industry has continued to further the use of technology used in film and technology production at every stage. Beyond production, the industry is aggressively involved in the development of new technologies to provide enhanced filmed entertainment to consumers in theaters, at home and on the go. The efforts of many hard-working and inventive people mean that consumers can now enjoy digital and 3-D cinema in theaters and highest quality entertainment formats in the home (Blu-Ray, high definition televisions, network connected set-top boxes and personal video recorders), while also having countless options for watching content on the go (websites offering streaming, rental and downloaded entertainment, SD cards with movies, mobile phones that can receive broadcast or streaming content, etc). The motion picture industry's engineers and other employees are also collaborating with other industries to enable "buy once, play anywhere" downloading, provide consumers with digital copies of films with their packaged discs, enable rich digital and online features on Blu-Ray discs, and permit DVD-burning of legally downloaded content, while still protecting the investment of the creator.

The industry's demand for new methods of storytelling, advanced special effects, and improved sound and visual quality, has resulted in innovations that not only enrich the viewing experience, but advance the progress of science and the public good. Examples of such innovations have come in areas such as:

- Building design and operation that reduce lifetime energy and resource consumption;
- Research and development of environmentally friendly fireworks;
- Facial recognition and biometric scanning;
- Crash barriers to secure facilities from unauthorized vehicle intrusions;
- Fasteners useful in high stress mechanical structures such as planes, bridges as well as roller coasters;
- Passenger restraint systems;
- Train car coupling systems;
- Improvements in wheelchair accessibility; and
- Handheld information devices to improve communication in multiple languages.

The Creators Behind Visual Effects

The inventive filmmaking of the American motion picture industry is made possible through the development of innovative technology and the creation of jobs on the cutting edge of visual effects. These jobs already number over 10,000, and are expected to grow over 25% in the next five to seven years.⁴⁹

Highly skilled artists combine their efforts with computer engineers to produce photorealistic characters and imagery in the field of computer-generated animation. Pixar, which unveiled groundbreaking computer-generated (CG) animation technology in November 1995 with the release of *Toy Story*, integrated CG animation with live action for their first time on *WALL-E* in order to produce a new look and feel.⁵⁰ The visual effects team at Blue Sky Studios must often write custom software tools in order to create the desired animated effect, such as exploding lava geysers or falling snow in the *Ice Age* films.⁵¹ In order to create the elaborate martial arts scenes in *Kung Fu Panda*, DreamWorks' team of artists and technical leaders used the largest number of moving cameras in a DreamWorks Animation picture to date.⁵²

Visual effects employees must constantly adapt existing technology to meet increasingly more complex and sophisticated filmmaking demands. When production started on the film *Spider-Man 3*, computer programs were not available that could achieve the effects needed. Sony Pictures Imageworks artists and engineers wrote code in order to manipulate millions of grains of sand as they formed a character made entirely of sand, resulting in one of the most visually complex characters in film history.⁵³

Similarly, technology did not exist that could make a faithful visual depiction of a character who is born old and ages in reverse, as in the film *The Curious Case of Benjamin Button*. Special effects company Digital Domain solved this problem by combining motion picture capture technology, high definition cameras and image analysis in new and unique ways in order to realistically portray this reverse life journey and overcome yet another storytelling challenge previously thought unconquerable.⁵⁴

These technological challenges are met by teams of hard-working individuals. To give you an idea of the scope, the creative team working on the 3D animated film adaptation of the book, *Cloudy with a Chance of Meatballs*, numbers 250 people. One full week's work by this team turns out two and a half minutes of footage.⁵⁵

Angels & Demons in Los Angeles

The movie *Angels & Demons*, based on the bestselling novel by Dan Brown, was filmed extensively in Los Angeles, both on studio sets carefully constructed to recreate Vatican City locations, as well as local venues like UCLA's Royce Hall. During its more than two years of production starting in December 2006, *Angels & Demons* employed over 1,400 U.S. workers, including over 1,000 union technicians like the 272 construction workers who did extensive set building; 73 actors; and 9,066 man-days of extras. Filming in Los Angeles took place during 103 days, including 87 days on the various stages constructed, as well as 26 days of post production.

Angels & Demons relied on small businesses and vendors to help create the settings and effects. Sprung Instant Structures provided massive tent structures used to reproduce famous Italian sculptures to scale. Wallpaper vendors carefully matched the walls of Vatican and church locations. And a team of over 450 visual effects illustrators and technicians worked on the multi-million dollar recreation of St. Peter's and other Italian landmarks for the big screen.

A project of this size, scope and duration requires the tremendous efforts from numerous people and businesses, and its economic impact is felt far and wide.

Spotlight

Methodology

The creative output of the American motion picture and television industry is widely recognized around the world, yet its contribution to the nation's economy is less well known. This purpose of this report is to shed light on the industry as a significant job creator and economic engine. The report is prepared by the Motion Picture Association of America (MPAA) using data from a number of sources, including studios, networks, key government agencies such as the Bureau of Labor Statistics and International Trade Administration, and various other proprietary and publicly-available data. Where 2008 data was available, it was used; however, at the time of printing 2008 data was not available for many of the sources.

All attempts have been made to calculate the full impact of the industry. However, we have been intentionally conservative with the appropriate Bureau of Economic Analysis' Regional Input-Output Multiplier (RIMS II) to calculate indirect jobs, and have not calculated further downstream dollar impact or "induced" effects from spending resulting from those jobs. Thus, the total economic impact is even greater, and more far-reaching, than revealed in this report.

Studios and Networks

Participants in a periodic survey supply employment, payroll, vendor expenditure and tax information covering all motion picture and television production functions to enable the Association to build a comprehensive picture of the size, scope, and impact of the industry.

The core survey data covered the following studios and networks: ABC, Dreamworks, Fox, NBC Universal, Paramount Pictures, Sony Pictures Entertainment, 20th Century Fox Film Corp. The Walt Disney Company, and Warner Bros., along with their subsidiaries and affiliates.

Bureau of Labor Statistics

The Bureau of Labor Statistics (BLS) provides additional information on employment in the industry. The BLS no longer publishes key employment data based on the U.S. Standard Industry Classification (SIC) codes. Since the SIC category 7819 of "Allied Services to the Motion Picture Production" was reallocated under the North American Industry Classification System (NAICS) into a number of different industry classifications, correspondence tables (census bridges) were used in an effort to capture more accurate employment figures. The same correspondence tables were used as in earlier reports. Note that according to Economic Research Associates, BLS captures the 85-95% of U.S. employees that are eligible for unemployment insurance.

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