

Economic & Fiscal Impact of the Nassau County Film Industry: March 2015 Update

Commissioned by the Nassau County
Industrial Development Agency



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Table of Contents

Executive Summary	1
Introduction	3
Project Background	3
Study Limitations	4
Methodology.....	5
Economic Impact Methodology	5
Economic Impacts.....	6
Direct Jobs	6
Total Impact of the Film Industry	8
Limited Fiscal Impact Study	9
Impact of Earnings (Sales Tax Revenue).....	9
Impact of Lodging (Hotel and Sales Tax)	9
Attachment A: What is an Economic Impact Analysis?	12

Executive Summary

The Nassau County Industrial Development Agency (the “Agency”) engaged Camoin Associates to analyze the economic impacts associated with the film industry (the “Industry”) in Nassau County. This report is an update of a similar analysis conducted in 2012 that focused on the impact of the film studios that are located in Bethpage, NY, namely the Grumman Studios, Gold Coast Studios, and the Sands Point Preserve (the “Studios”), however this update is based on the impact of all Nassau County jobs in the Industry and not just on the jobs associated with filming occurring at the Studios. The economic and fiscal impact analysis includes jobs, wages, sales, and municipal revenues that result from the existence of the film industry¹ in Nassau County.

Significant investments have been made in developing the Industry in the County, and the Agency is interested in quantifying how those investments have resulted in jobs, wages, sales, and tax revenue for the County.

Benefits of the Industry:

- Ongoing economic impacts related to spending occurring in Nassau County and spending by employees of the Industry; and
- New revenues for the County’s general fund, including sales taxes and hotel occupancy taxes.

Of primary importance to this analysis is the answer to the question: “What would be lost if the film industry were to disappear in Nassau County?” To answer this question, it was necessary to first understand what role the film industry currently plays in the County in terms of:

- Current number of jobs resulting from the Industry on an annual basis
- Current number of jobs filled by Nassau County residents (versus non-County residents)

The Agency provided us with information regarding film industry employment for 2013 and 2014 to update the 2012 report. In total, over 535 productions were filmed in Nassau County over 2,109 days between 2013 and 2014. This information, combined with data provided by the Agency for average employment per production type, was used to determine the total number of job-years (5 days x 52 weeks = 260 days of employment) that occur as a result of the Industry. Using a job-years calculation and estimates of the origin of the employees, it was determined that 374 job-years in 2013

¹ Note that throughout this report the terms “film industry” and “Industry” refer to both movies and television shows being filmed in Nassau County.



and 263 job-years in 2014 are held by Nassau County residents and net new to the County.

These job-years are the “direct effects” of the Industry in Nassau County, but the impacts do not stop there. The direct effects circulate through the economy of the County causing additional follow-on impacts in the form of “Indirect Effects”, namely (a) spending by businesses impacted by the direct effects and (b) spending of employees of those same businesses on local goods and services.

Using the direct effects jobs figures as an input, Camoin Associates employed an economic impact modeling program to estimate the total number of jobs, sales and earnings supported by the Industry. The table below summarizes findings of the economic impact analysis. In total, the economic impact of the film industry on Nassau County is over \$533 million and 1,773 jobs.

Benefits of the Film Industry to the County, 2013-2014		
Total Sales	Total Jobs	Total Earnings
\$533,659,786	1,773	\$152,895,276
Direct Sales	Direct Jobs	Direct Earnings
\$375,590,737	637	\$ 91,009,093
Total Sales Tax Revenue to County		
\$ 1,137,159		
Total Lodging-Related Revenue to County		
\$ 504,352		

Note: Lodging-Related Revenues include both the sales tax and the occupancy tax levied on hotel rooms in the County

Our study therefore indicates that between 2013 and 2014 the film industry generated \$533 million in new sales throughout the County including \$375.6 million in direct sales. Roughly 1,773 full-time, year-round equivalent jobs exist within the County because of the film industry. These individuals earn a total of \$152 million annually (labor costs are also included as a portion of the sales). The County also benefitted from approximately \$1.6 million in sales and hotel tax revenue.



Introduction

The Nassau County Industrial Development Agency (the “Agency”) engaged Camoin Associates to update a report conducted in 2012 (“Original Report”) that analyzed the economic impacts associated with the film industry in Nassau County (the “County”). The Original Report focused only on the jobs associated with productions filmed at the studios located in Bethpage, NY, namely the Grumman Studios, Gold Coast Studios, and the Sands Point Preserve (the “Studios”), however this update is based on the impact of the whole film industry in Nassau County, and not just the activity occurring at the Studios. The economic and fiscal impact analysis includes jobs, wages, sales, and municipal revenues that result from the existence of the film industry (the “Industry”) in Nassau County. What follows is the updated report which utilizes many of the same assumptions and methodologies outlined in detail in the Original Report, except when noted.

The County benefits from the film industry’s impact in a number of ways:

- Ongoing economic impacts related to spending occurring in the County by the Industry and spending in the general area by employees of the Industry and various productions, creating jobs onsite and in the general area; and
- Fiscal benefits, including sales and hotel occupancy taxes paid by employees of the Industry.

The Nassau County Industrial Development Agency has commissioned Camoin Associates to undertake an assessment of the Industry to quantify the value of these benefits to the County.

Project Background

Nassau County is a desired location for shooting a wide variety of productions ranging from feature films and pilots to documentaries and commercials. The County benefits from this filming activity and the films benefit from the State’s tax incentive program for film productions and access to the Studios. Without access to these Studios it is unlikely that the wide variety of filming would occur, and therefore the film industry in Nassau County would not be as large.

The Studios are unique in that they are located within the NYC Metro area’s cast and crew talent pool, they have access to paved parking and storage space, close proximity to major airports, and other benefits that have made the Studios successful at attracting both large and small productions. Key financial benefits of the Studios include:

- The Studios are qualified NYS production facilities and are therefore able to offer productions access to the Empire State Film Production Tax Credit program which provides a 30% tax credit for production expenditures.
- The Studios are located within the “Film Zone”, which is a boundary set by several NYC based workers’ unions, guilds, and organization chapters defining



the area(s) in which they will work locally. The boundary is set as a 25 mile radius emanating from Columbus Circle in New York City.

The Studios have been successful at attracting productions to Bethpage and a wide variety of films and movies have been produced at the facilities. With the Studios' ability to attract high profile films and movies, the overall industry continues to grow throughout the County.

Study Limitations

Camoin Associates' evaluation is limited to assessing the economic impacts and certain fiscal impacts of the Industry on the County. Specifically, for the fiscal impact assessment, we estimated the various tax revenues the County may enjoy as a result of spending by Industry employees and productions. The calculation of the costs of public services associated with the Project, if any, is outside the scope of this engagement.

The Agency provided information to Camoin Associates to use as the inputs for the economic impact modeling. Data provided was for years 2013 and 2014 and included:

- Total number of productions filmed in Nassau County by type;
- List of the total number of days of filming for each production type;
- Average number of employees by production type.

Camoin Associates did not undertake any independent research to corroborate the numbers provided by the Agency.



Methodology

As described in the introduction, Camoin Associates was commissioned to assess and report on the economic and fiscal impacts of the film industry on Nassau County. The central question of the analysis is: **“What would be lost if the film industry were to disappear from Nassau County?”** To answer this question, it was necessary to first understand what role the film industry currently plays in the County in terms of:

- Current number of jobs resulting from the Industry on an annual basis, and
- Current number of jobs filled by Nassau County residents.

The jobs in the film industry that are filled by Nassau County residents are the jobs that are considered to have a direct impact on the County’s economy, because without the Industry, those jobs would not exist. The Direct Effects cause jobs to be created, wages and other earning to accrue, and economic activity to occur in the County. These Direct Effects then circulate through the economy of the County causing additional follow-on impacts in the form of “Indirect Effects”, namely (a) spending by businesses impacted by the Direct Effects and (b) spending of employees of those same businesses on local goods and services.

Economic Impact Methodology

To perform the economic impact analysis, it was necessary to:

1. Review production and job figures provided by the Agency
2. Calculate the number of job-years supported by the Industry (total work days divided by 260).
3. Determine the percent of Industry jobs filled by Nassau County residents and use that figure as the direct impact of the Industry on the County.
4. Calculate direct jobs/economic activity resulting from the “new” jobs.
5. Model indirect impacts on jobs/economic activity using the EMSI software package.
6. Arrive at total economic impacts as the sum of all direct and indirect impacts.



Economic Impacts

The estimates of direct economic activity resulting from the Industry and provided by the Agency were used to calculate the direct inputs for the economic impact model. Camoin Associates used the input-output model designed by Economic Modeling Specialists, Inc. (EMSI). EMSI allows the analyst to input the amount of new direct economic activity (spending or jobs) occurring within the County and uses the direct inputs to estimate the spillover effects that the net new spending or jobs have as these new dollars circulate through the Nassau County economy. This is captured in the indirect impacts and is commonly referred to as the “multiplier effect.” See Attachment A for more information on economic impact analysis.

Direct Jobs

The first step of the analysis is to determine the how many jobs and wages are being supported in the County as a result of the Industry. The Agency provided job figures for years 2013 and 2014 as a basis for this information, providing information on type of production, number of days of filming, and an estimated number of employees employed by production type. In total, the 535 productions filmed in Nassau County accounted for 2,109 filming days over the two years. Based on the average number of employees working on each type of production, it can be assumed that those 2,109 filming days accounted for 254,820 total working days. The following tables illustrate how these productions and total working days translate into “job-years” to calculate the number of employees working in the film industry. Job-year totals are shown for 2013, 2014, and 2013-2014 combined.



Total Number of Job Years, 2013				
A	B	D	E	F
Type of Production	# of Productions of This Type	Total Days	Average Jobs Per Production of This Type	Days of Work (Column D x Column E)
Features	58	316	150	47,400
Shorts	25	46	20	920
Students	24	79	10	790
TV Series	91	239	100	23,900
Pilot/Special	7	368	200	73,600
Commercial	36	41	60	2,460
Corporate	1	1	5	5
Still	26	30	5	150
Music Video	2	2	15	30
Documentary	12	33	5	165
Other	29	23	10	230
Total	311	1,178		149,650
Total Job Years (149,650/260)*				576
Total Local Jobs (65%)**				374
Total Number of Job Years, 2014				
A	B	D	E	F
Type of Production	# of Productions of This Type	Total Days	Average Jobs Per Production of This Type	Days of Work (Column D x Column E)
Features	41	302	150	45,300
Shorts	37	75	20	1,500
Students	16	49	10	490
TV Series	61	248	100	24,800
Pilot/Special	3	154	200	30,800
Commercial	21	29	60	1,740
Corporate	1	1	5	5
Still	8	12	5	60
Music Video	3	4	15	60
Documentary	11	31	5	155
Other	22	26	10	260
Total	224	931		105,170
Total Job Years (105,170/260)*				405
Total Local Jobs (65%)**				263
Total Number of Job Years, 2013-2014				
Total (2013+2014)	535	2,109		254,820
Total Job Years (254,820/260)*				980.08
Total Local Jobs (65%)**				637

Source: Camoin Associates, Agency

* Assumes 5 working days per week (5 days x 52 weeks = 260 working days)

** Assumption based on information provided by the production companies to the Agency



Information provided by the production companies to the Agency as part of the 2012 study suggested that 65% of those employed in the Industry are residents of Nassau County. Therefore, we use this same percentage for the update and assume that 65% of the 576 job-years in 2013 and 65% of the 405 job-years in 2014 are held by Nassau County residents with the remaining held by people from outside of the area, including NYC and elsewhere.

Total Impact of the Film Industry

The table below outlines the direct and indirect economic impact of the Industry on Nassau County. The indirect impacts are those that occur as the dollars from direct impacts cycle through the economy. For example, the new employees receive wages and in turn spend a portion of those dollars in the local economy for daily needs, housing and other expenses, and a portion of those dollars are again re-spent in the local economy. As those dollars continue to circulate, additional jobs and business activity are created. This effect, as well as the Industry spending in the local economy, is captured in the indirect impacts.

Economic Impact of Industry, 2013			
	Direct	Indirect	Total
Jobs	374	667	1,041
Sales	\$ 220,519,522	\$ 92,806,631	\$ 313,326,154
Earnings	\$ 53,433,910	\$ 36,335,059	\$ 89,768,969
Economic Impact of Industry, 2014			
	Direct	Indirect	Total
Jobs	263	469	732
Sales	\$ 155,071,215	\$ 65,262,417	\$ 220,333,632
Earnings	\$ 37,575,183	\$ 25,551,124	\$ 63,126,307
Total Economic Impact 2013-2014			
	Direct	Indirect	Total
Jobs	637	1,136	1,773
Sales	\$ 375,590,737	\$ 158,069,048	\$ 533,659,786
Earnings	\$ 91,009,093	\$ 61,886,183	\$ 152,895,276

Source: EMSI, Camoin Associates

As shown in the table above, over the two year period 637 new jobs and over \$91 million in new earnings occur within the Industry in Nassau County. Taking into account the additional indirect and induced economic impacts on Nassau County from those direct jobs, total employment created by the Project is estimated at 1,773 jobs and \$152.8 million in earnings over the two year period. The Industry generated \$533 million in new sales in the County between 2013 and 2014.



Limited Fiscal Impact Study

In addition to the economic impact of the Project on the local economy outlined above, there is also a fiscal impact in terms of sales and hotel tax generated. The following section of the analysis outlines the impact of the Industry on the county's revenue sources. As noted in the Executive Summary, this analysis is limited in that it focuses exclusively on increases and decreases to local county revenues and does not include projections related to the costs of public service provision.

Impact of Earnings (Sales Tax Revenue)

The additional earnings described by the total economic impact of the Industry (see the previous section) lead to additional sales tax revenue for the County. It is assumed that 70%² of the earnings are spent within Nassau County and that 25%³ of those purchases are taxable.

Annual County Sales Tax Revenue - Earnings, 2013	
Total New Earnings	\$ 89,768,969
Amount Spent in County (70%)	\$ 62,838,278
Amount Taxable (25%)	\$ 15,709,570
County Sales Tax Rate	4.25%
New Local Tax Revenue	\$ 667,657
Annual County Sales Tax Revenue - Earnings, 2014	
Total New Earnings	\$ 63,126,307
Amount Spent in County (70%)	\$ 44,188,415
Amount Taxable (25%)	\$ 11,047,104
County Sales Tax Rate	4.25%
New Local Tax Revenue	\$ 469,502
Total New County Sales Tax Revenue - Earnings 2013-2014	
Total	\$ 1,137,159

Source: Nassau County, Camoin Associates

Under these assumptions, the County received \$1.1 million over the two year period from the economic impacts of the Project.

Impact of Lodging (Hotel and Sales Tax)

In addition to the sales tax revenue, Nassau County also receives additional Hotel Tax and Sales Tax revenue from the employees who are staying in the area at lodging facilities. It is estimated that 35% of the total production employees are from out of the County. Of those 35%, 65% stay locally in hotels and/or extended stay facilities. Therefore, 22.75% of total employees are from out of County and staying in hotels,

² Based on a retail sales leakage analysis conducted for Nassau County that analyzed the amount of goods and services that residents are traveling out of the county for.

³ Based on a review of consumer spending habits and the percent of total purchases that are on taxable goods.



thereby contributing to hotel spending and hotel tax revenue. The table below calculates the total number of hotel stays that are generated by the Film Industry in the County.

Total Number of Hotel Nights, 2013		
Type of Production	Days of Work	Hotel Nights (22.75%)
Features	47,400	10,784
Shorts	920	209
Students	790	180
TV Series	23,900	5,437
Pilot/Special	73,600	16,744
Commercial	2,460	560
Corporate	5	1
Still	150	34
Music Video	30	7
Documentary	165	38
Other	230	52
Total	149,650	34,045
Total Number of Hotel Nights, 2014		
Type of Production	Days of Work	Hotel Nights (22.75%)
Features	45,300	10,306
Shorts	1,500	341
Students	490	111
TV Series	24,800	5,642
Pilot/Special	30,800	7,007
Commercial	1,740	396
Corporate	5	1
Still	60	14
Music Video	60	14
Documentary	155	35
Other	260	59
Total	105,170	23,926
Total Number of Hotel Nights, 2013-2014		
Total	254,820	57,972

Source: Camoin Associates, Agency

Assuming an average of \$120 per night, a 3% County hotel tax and 4.25% County sales tax, that is additional revenue of nearly \$504,352 for the County over the two year period.



Hotel Spending and Tax Revenue, 2013-2014	
Number of Hotel Nights	57,972
Average Cost of a Hotel	\$ 120
Annual Hotel Spending	\$ 6,956,586
Nassau County Hotel Tax	3.00%
Nassau County Sales Tax	4.25%
New Lodging Related Revenue	\$ 504,352

Source: Nassau County, Camoin Associates



Attachment A: What is an Economic Impact Analysis?

The purpose of conducting an economic impact study is to ascertain the total cumulative changes in employment, earnings and output in a given economy due to some initial “change in final demand”. To understand the meaning of “change in final demand”, consider the installation of a new widget manufacturer in Anytown, USA. The widget manufacturer sells \$1 million worth of its widgets per year exclusively to consumers in Canada. Therefore, the annual change in final demand in the United States is \$1 million because dollars are flowing in from outside the United States and are therefore “new” dollars in the economy.

This change in final demand translates into the first round of buying and selling that occurs in an economy. For example, the widget manufacturer must buy its inputs of production (electricity, steel, etc.), must lease or purchase property and pay its workers. This first round is commonly referred to as the “Direct Effects” of the change in final demand and is the basis of additional rounds of buying and selling described below.

To continue this example, the widget manufacturer’s vendors (the supplier of electricity and the supplier of steel) will enjoy additional output (i.e. sales) that will sustain their businesses and cause them to make additional purchases in the economy. The steel producer will need more pig iron and the electric company will purchase additional power from generation entities. In this second round, some of those additional purchases will be made in the US economy and some will “leak out”. What remains will cause a third round (with leakage) and a fourth (and so on) in ever-diminishing rounds of spending. These sets of industry-to-industry purchases are referred to as the “Indirect Effects” of the change in final demand.

Finally, the widget manufacturer has employees who will naturally spend their wages. As with the Indirect Effects, the wages spent will either be for local goods and services or will “leak” out of the economy. The purchases of local goods and services will then stimulate other local economic activity; such effects are referred to as the “Induced Effects” of the change in final demand.

Therefore, the total economic impact resulting from the new widget manufacturer is the initial \$1 million of new money (i.e. Direct Effects) flowing in the US economy, plus the Indirect Effects and the Induced Effects. The ratio between Direct Effects and Total Effects (the sum of Indirect and Induced Effects) is called the “multiplier effect” and is often reported as a dollar-of-impact per dollar-of-change. Therefore, a multiplier of 2.4 means that for every dollar (\$1) of change in final demand, an additional \$1.40 of indirect and induced economic activity occurs for a total of \$2.40.

Key information for the reader to retain is that this type of analysis requires rigorous and careful consideration of the geography selected (i.e. how the “local economy” is defined) and the implications of the geography on the computation of the change in final demand. If this analysis wanted to consider the impact of the widget manufacturer on the entire North American continent, it would have to conclude that the change in final demand is zero and therefore the economic impact is zero. This is because the \$1



million of widgets being purchased by Canadians is not causing total North American demand to increase by \$1 million. Presumably, those Canadian purchasers will have \$1 million less to spend on other items and the effects of additional widget production will be cancelled out by a commensurate reduction in the purchases of other goods and services.

Changes in final demand, and therefore Direct Effects, can occur in a number of circumstances. The above example is easiest to understand: the effect of a manufacturer producing locally but selling globally. If, however, 100% of domestic demand for a good is being met by foreign suppliers (say, DVD players being imported into the US from Korea and Japan), locating a manufacturer of DVD players in the US will cause a change in final demand because all of those dollars currently leaving the US economy will instead remain. A situation can be envisioned whereby a producer is serving both local and foreign demand, and an impact analysis would have to be careful in calculating how many “new” dollars the producer would be causing to occur domestically.

