

Economic & Fiscal Impacts of the New York State Television & Motion Picture Production Incentive Program

FINAL REPORT

December 2018

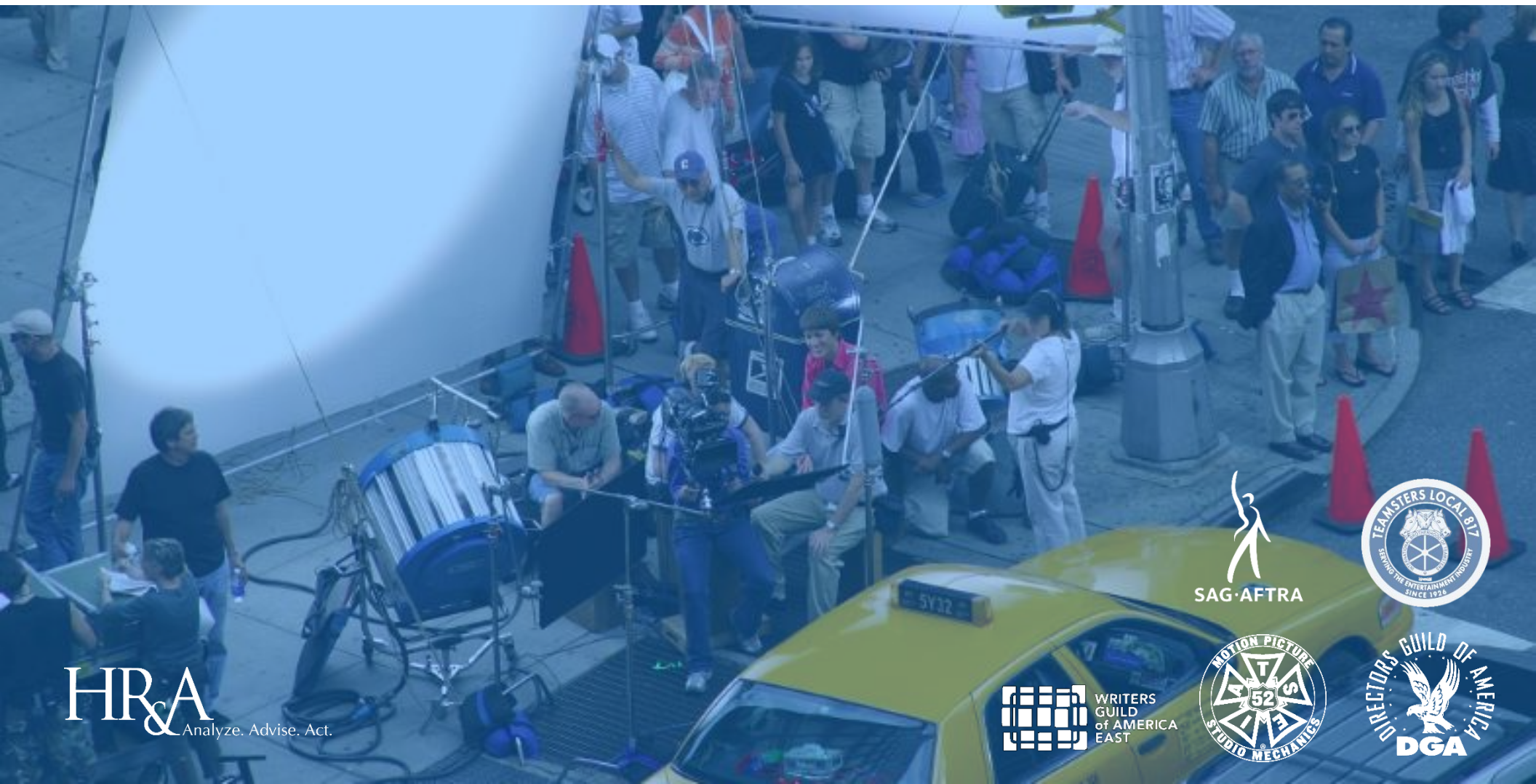


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Economic & Fiscal Impacts of the NYS Film Production Tax Credit

Executive Summary

NYS Film & TV Production: Key Findings

INTEGRAL TO THE NYS ECONOMY:

- Film & TV Production jobs are up **55%** since 2004, growing **4.5X** faster than the NYS economy overall and capturing **1-in-3 jobs** added to the sector nationwide.

INDUSTRY TRANSFORMATION:

- Strong industry growth is being driven by TV production, which constituted **56%** of all NYC film permits issued last year. NYS hosted a **record number of TV series** in 2017, **91** of them supported by the tax credit.

PATHWAYS TO OPPORTUNITY:

- Unions help to **ensure high wages, full benefits & robust protections** in the Film & TV Production sector, pioneering a model that's becoming ever-critical in a growing gig economy. Jobs supported by the Credit paid **\$90,000/year**, on average, in 2017.
- Jobs within the sector are accessible to a wide range of New Yorkers, with **44%** of jobs in the industry available to workers **without a 4-year degree**.

INCREASING PERMANENCY:

- Facility capacity has increased in response to growing demand for scripted content, with **30+ stages** added since 2016 or in the active pipeline, totaling over **\$550 million** in investment.

ECONOMIC ACTIVITY:

- Qualified productions drove **\$3.9 billion** in local spending and supported **48,300 jobs** across NYS in 2017, a **five-fold increase** since 2004. **One-in-5** jobs were located outside of NYC.
 - Qualified productions generated **\$780M** in fiscal revenues in 2017, a conservative estimate that excludes other Credit-enabled activities such as infrastructure investments and tourism.
-

INTEGRAL TO THE NYS ECONOMY

New York State's inherent strengths make it optimally-suited to embrace innovation, accessibility & adaptability in the face of a shifting global competitive landscape.



A robust base of permanent talent who want to live and work in New York



Access to decision-makers and funders, with an expanding corporate media presence



Ready access to technological innovation needed to capitalize on emerging trends & technologies



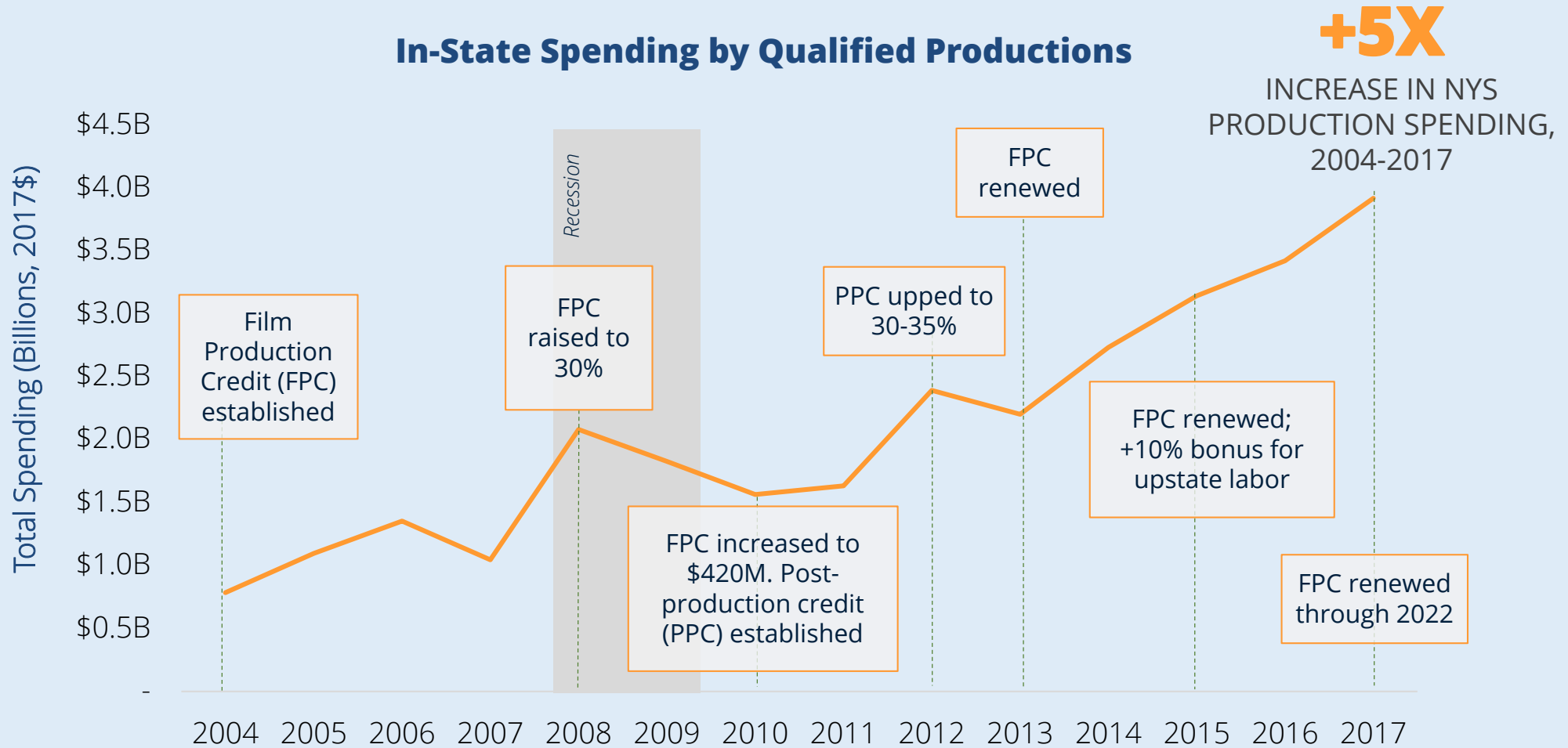
Proximity to supporting industries such as theater, fashion, writing, music, design & tech



Supportive local jurisdictions committed to growing the sector

INTEGRAL TO THE NYS ECONOMY

Local production spending is at all-time highs, injecting \$3.9 billion into the New York State economy in 2017.

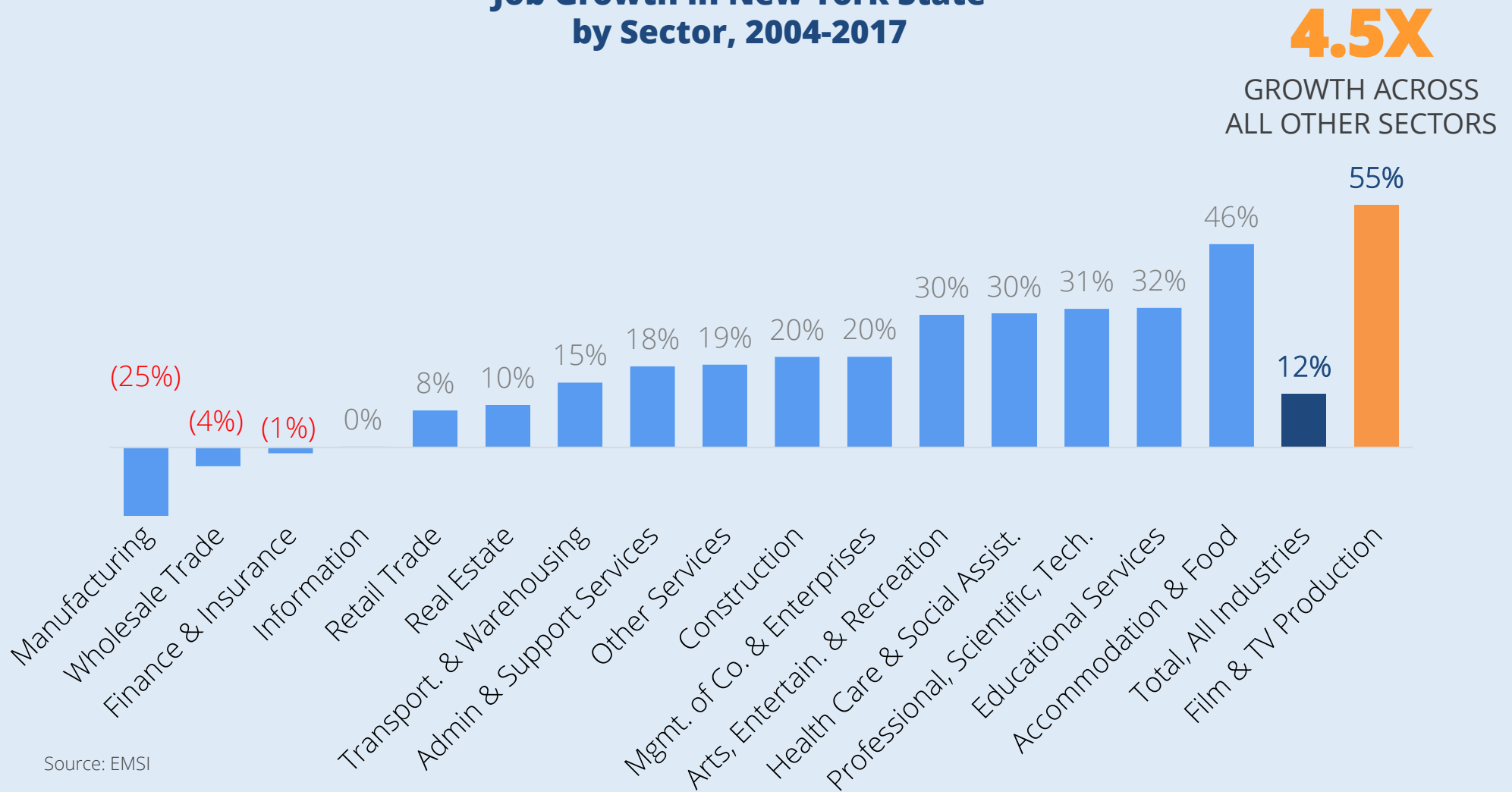


Source: New York State Empire State Development Corporation (ESD); All dollar estimates adjusted for inflation using the U.S. Census Bureau Consumer Price Index (CPI).

INTEGRAL TO THE NYS ECONOMY

Since the Credit was introduced, job growth within the Film & TV Production sector has outpaced that of every other major sector in New York State.

**Job Growth in New York State
by Sector, 2004-2017**



Source: EMSI

INDUSTRY TRANSFORMATION

As the original 'TV Town,' New York State is uniquely able to capitalize on the year-round employment provided by scripted television productions.

91

TV series & pilots applying for the Tax Credit in 2017

56%

television's share of total NYC film permits issued in 2017

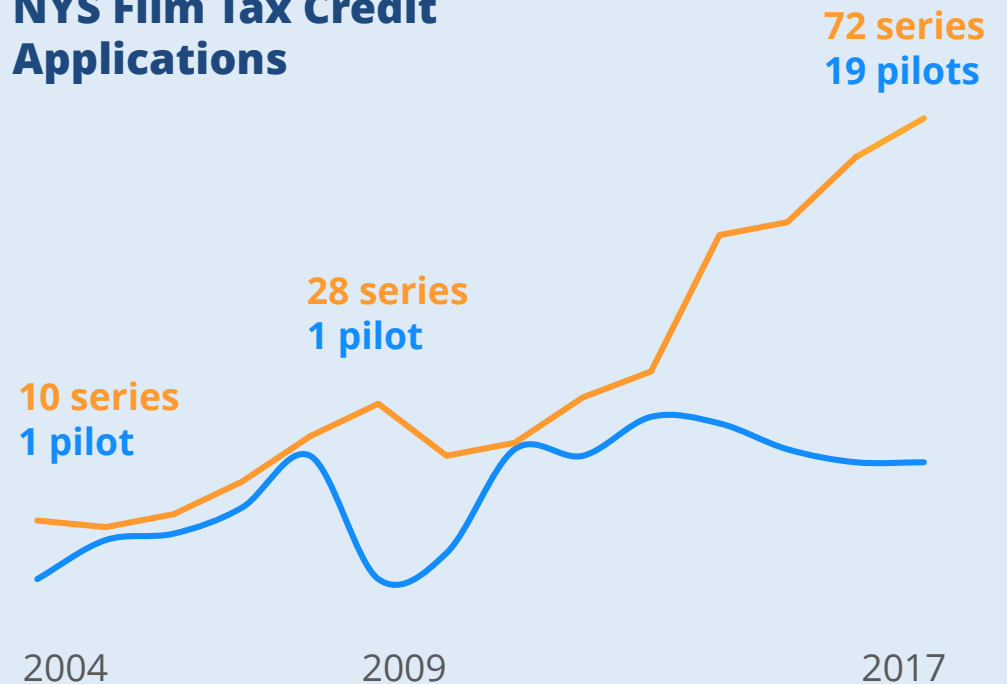
8-10 mo.

typical duration of episodic television film shoot

Source: ESD, New York City Mayor's Office of Media and Entertainment (MOME).

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NYS Film Tax Credit Applications

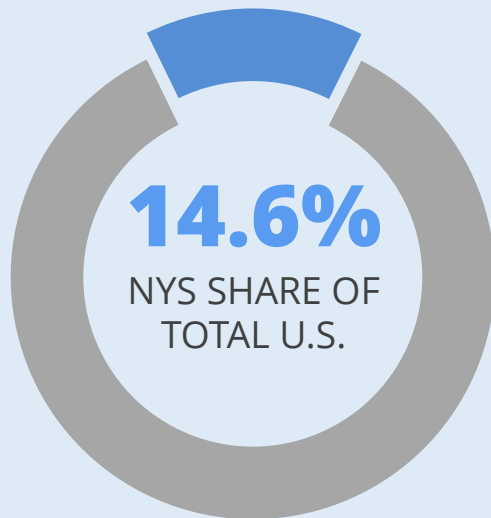


TV productions are multi-year in nature, making them particularly sensitive to uncertainties in the credit. This is evident in 2009 when the number of pilots, the feeder for TV shows, dropped off almost completely.

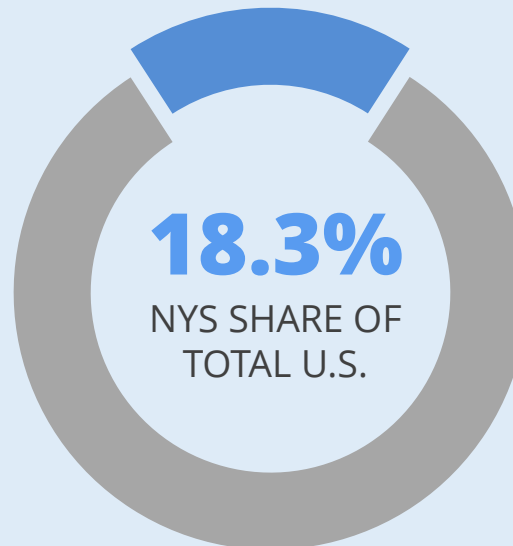
INDUSTRY TRANSFORMATION

New York State is an increasingly dominant hub for Film & TV Production in the U.S., capturing 1 in 3 industry jobs added nationwide between 2004 and 2017.

Share of Total US Film and TV Production Industry Employment, 2004 - 2017



2004



2017

+24%

GROWTH IN US FILM & TV PRODUCTION JOBS, 2004-2017

+25%

GROWTH IN NYS MARKET SHARE

-4.3%

DECREASE IN MARKET SHARE AMONG ALL OTHER STATES

Source: EMSI. Industry definition excludes jobs in other sectors that may engage in Film & TV Production activities (e.g. Independent Artists, Writers, and Performers). The above estimates should therefore be interpreted as conservative measures of total Film & TV Production-related employment.

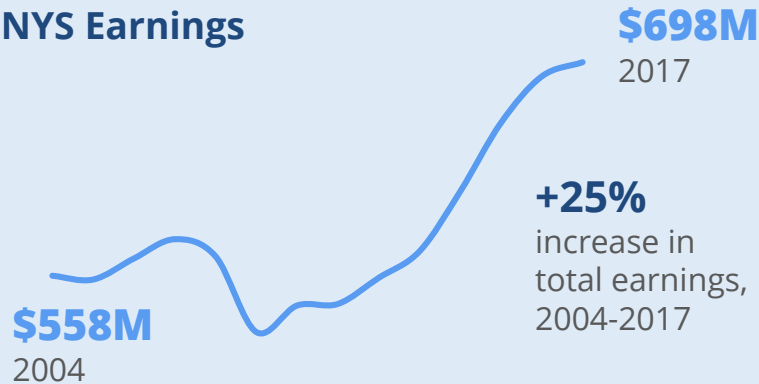
PATHWAYS TO OPPORTUNITY

Union membership has grown in line with increased demand, securing higher wages, job security, and full health and pension benefits for thousands of New Yorkers.

Above the Line (ATL)

Creative talent (e.g. writers, directors, producers & actors)

SAG-AFTRA Total NYS Earnings



Guild Membership

26,550

total SAG-AFTRA members in NYS, 2017

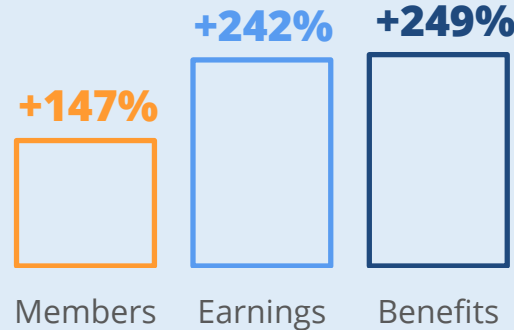
+24%

increase in above-the-line DGA film & dramatic TV members in NYS, 2004-2017

Below the Line (BTL)

All other production crew (e.g. mechanical, transportation & construction talent)

Local 817 NYS Growth, 2004-2017

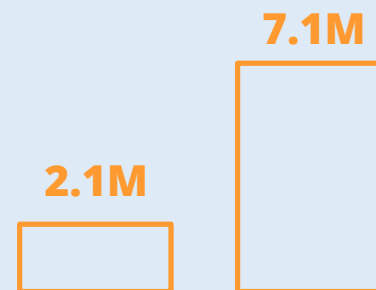


Guild Membership, 2004-2017

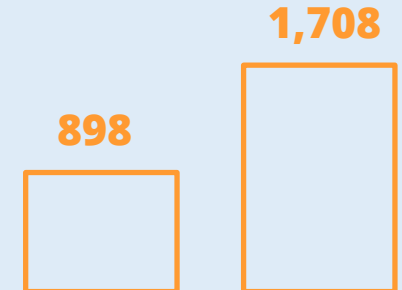
+30%

increase in below-the-line DGA film & dramatic TV members in NYS

Local 52, Total NYS Hours Worked



Local 52, Annual Hours per Member



Source: SAG-AFTRA, DGA, Local 817, Local 52. All earnings inflated to 2017\$.

PATHWAYS TO OPPORTUNITY

The Film & TV Production sector offers economic opportunities for all New Yorkers.

44%

INDUSTRY JOBS DO NOT REQUIRE A 4-YEAR DEGREE

\$90,000

AVERAGE ANNUAL WAGE AMONG CREDIT-SUPPORTED JOBS

37%

HIGHER MEDIAN HOURLY WAGE VS. STATE-WIDE AVERAGE ACROSS ALL SECTORS

Industry expansion has allowed for significant investments in training and talent development, opening up new pathways for economic mobility among a wide range of New Yorkers.



Source: EMSI, IMPLAN.

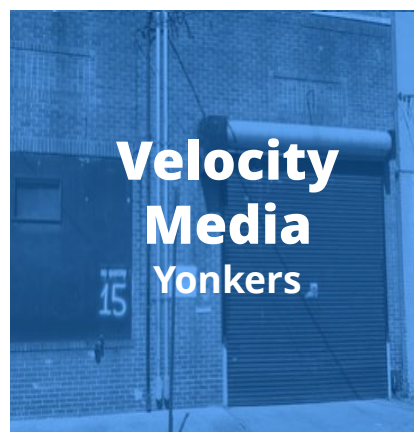
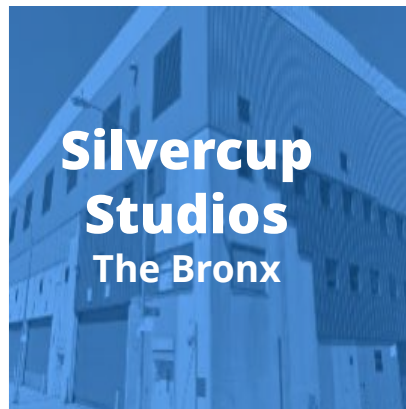
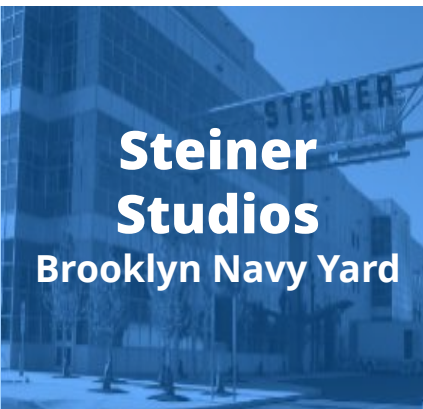
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INCREASING PERMANENCY

A thriving Film & TV Production sector is spurring the expansion of studio production facilities across New York State.

30+ NEW SOUNDSTAGES

\$550M RECENT & PLANNED CAPITAL INVESTMENT



Source: HR&A analysis based on interviews with major studio operators in New York State. Totals reflect expansions or investments undertaken over the last three years, as well as those currently under construction or in active phases of pre-development.

ECONOMIC ACTIVITY

The Film Tax Credit supported 48,300 jobs and \$6.7 billion in spending across NYS in 2017, in addition to countless non-qualified activities supported by the critical mass of local talent and infrastructure that the Credit has enabled.

\$3.9B
DIRECT IN-STATE
SPENDING BY
QUALIFIED
PRODUCTIONS IN
2017

48,300
TOTAL JOBS SUPPORTED, A
5-FOLD INCREASE FROM 2004

\$4.3B
TOTAL PERSONAL INCOME

\$6.7B
TOTAL ECONOMIC ACTIVITY
ACROSS NEW YORK STATE'S
ECONOMY

Source: ESD. HR&A analysis of IMPLAN. All totals are cited in 2017\$.

ECONOMIC ACTIVITY

The Tax Credit supports local economies all across New York State, generating \$1.1 billion in economic activity outside of New York City in 2017.

10,000

JOBS OUTSIDE OF NYC



38,300

JOBS IN NYC

\$1.1B

SPENDING OUTSIDE OF NYC

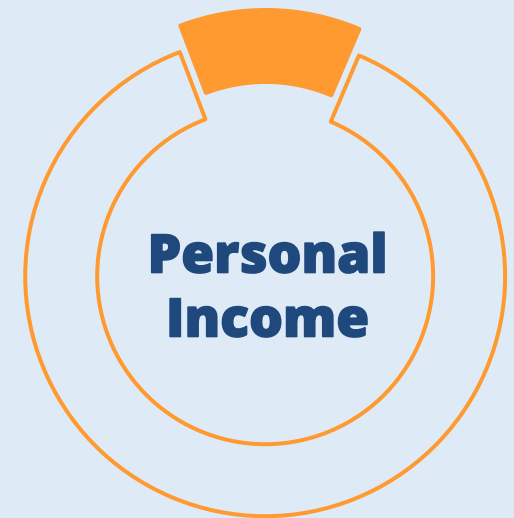


\$5.6B

SPENDING IN NYC

\$520M

PERSONAL INCOME OUTSIDE NYC



\$3.7B

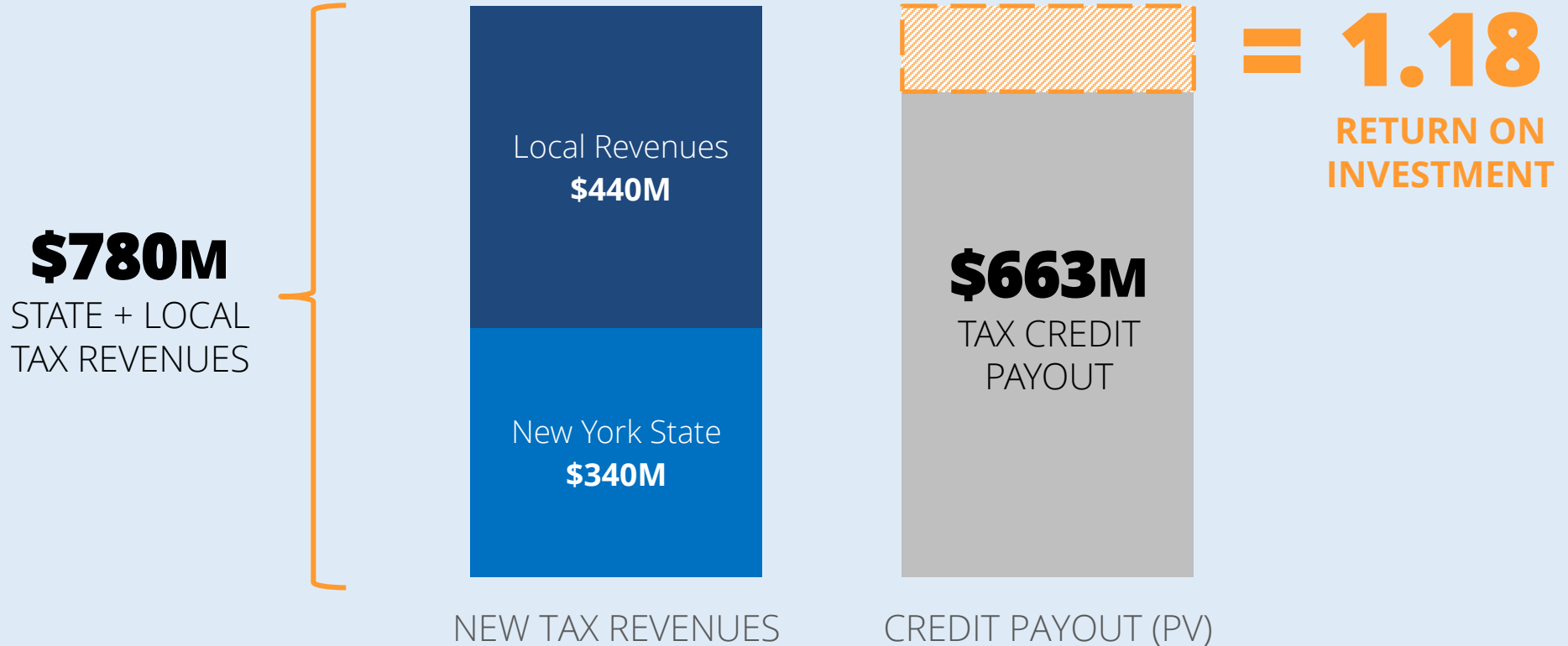
PERSONAL INCOME IN NYC

Source: ESD, HR&A analysis of IMPLAN. All totals are cited in 2017\$.

ECONOMIC ACTIVITY

The Credit generated \$780 million in state and local tax revenues in 2017, representing an 18 percent return on investment for New York taxpayers.

Return on Investment (ROI) of the New York State Film Tax Credit, 2017



Source: HR&A analysis of IMPLAN outputs; Empire State Development Corp.; NYS Dept of Taxation and Finance; U.S. Census Bureau State & Local Government Finances; U.S. Bureau of Economic Analysis. All amounts cited in 2017\$. A discount rate of 1.58%, equal to the Series 2018A tax exempt bond yield in 2021, was applied to future Credit payouts to derive the present value.

NEW YORK STATE FILM & TV PRODUCTION

Industry Overview



New York State is at the forefront of advancements in the Film and TV Production industry, generating new sources of economic opportunity for New Yorkers of all backgrounds.

Film and television are critical components of the New York State economy, supporting thousands of workers with a variety of skillsets. Unlike other forms of creative content production such as recording and publishing, which saw drastic declines in employment following the introduction of new distribution platforms, the Film and Television Production sector has seized on disruptive changes in digital content consumption to drive exponential growth within the sector. Few places outside of New York State are equipped with the robust pool of talent and physical infrastructure needed to accommodate the ever-increasing demand for scripted television content being generated by online streaming services.

In addition to serving as a major draw for talent, **New York City's signature skyline and endless variety of cultures, neighborhoods, and experiences** has long made it an attractive place to set and shoot film. In 2017, Film and Television Production employment in New York State stood at historic highs. Since the New York State Film Tax Credit program was established in 2004, the State has captured an increasing share of total U.S. Film and TV Production employment, growing New York State's market share by 25 percent.

New York is not the only state with a program targeted towards the Film and TV Production sector. Over half of all states now offer some form of support to attract productions and grow local industry. Existing infrastructure and talent alone cannot ensure the continued presence of the industry in New York State. Financial **incentives that respond to growing demand and provide for long-term stability remain essential** to sustaining and growing local Film and Television Production activity across New York State.

KEY FINDINGS

- Total employment within the Film & TV Production sector in NYS has grown **55 percent** since the Credit was established. Job growth within the sector has outpaced that of every other major industry, growing at more than **4.5X the rate** of the local economy overall.
- Strong industry growth is being driven by increased demand for scripted television content. NYS hosted a **record number of TV series** in 2017, providing **stable, year-round jobs** to thousands of New Yorkers.
- The Film & TV Production sector has a strong tradition of **unionization** in NYS, helping secure **higher wages and full health & pension benefits** at a time when strong worker protections for other types of free lance work are increasingly uncommon.
- Film & TV Production jobs are widely accessible. **44 percent** of all jobs **do not require a 4-year degree**, lowering the barriers to entry for positions that pay **37 percent more** than the statewide median.
- The industry expanded its physical footprint to accommodate growing demand, with more than **30 new stages** costing upwards of **\$550 million** having come online or in active pre-development across NYS.
- A record **228 productions** applied for the NYS Film Tax Credit in 2017. Direct in-state spending by qualified productions supported **\$6.7 billion in economic activity** and generated **\$780 million** in State and Local tax revenues in 2017.

Workers within the Film and Television Production sector in New York State are **employed across a variety of core production occupations.**

Jobs within the Film and Television Production sector can be categorized into two broad groups:

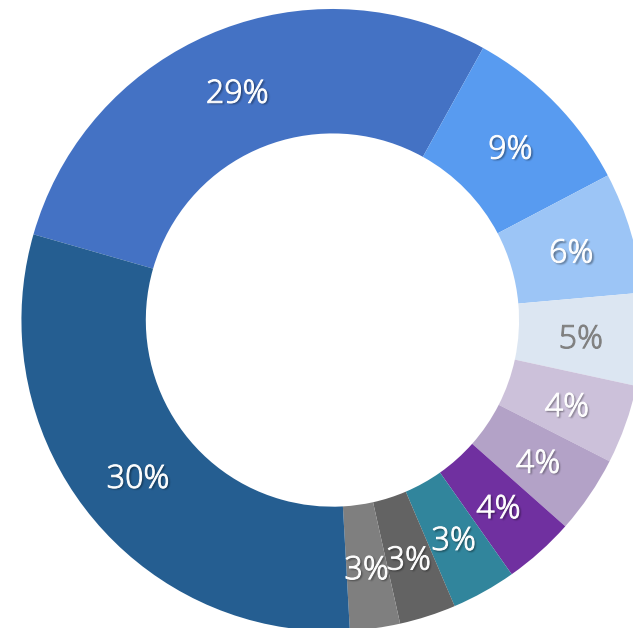
- **Above-the-line (ATL) talent**, which encompasses those working in the creative process, including writers, directors, producers, and actors; and
- **Below-the-line (BTL) talent**, comprised of all other production positions, including mechanical, transportation, and construction crews.

New York State has a robust pool of above-the-line talent owing to other entertainment opportunities supported by the local economy, including those in theater, dance, and publishing. New York State's strong history of unionization has further contributed to a strong contingent of below-the-line talent, many of them represented by the Teamsters or other local unions.

In 2017, nearly half of all workers in the Film and Television Production sector in New York State were concentrated in **four core occupations**: Actors, Producers, and Directors (29 percent of total jobs); Camera Operators & Editors (9 percent); Sound Engineering Technicians (6 percent); and Designers (5 percent).

Source: EMSI.

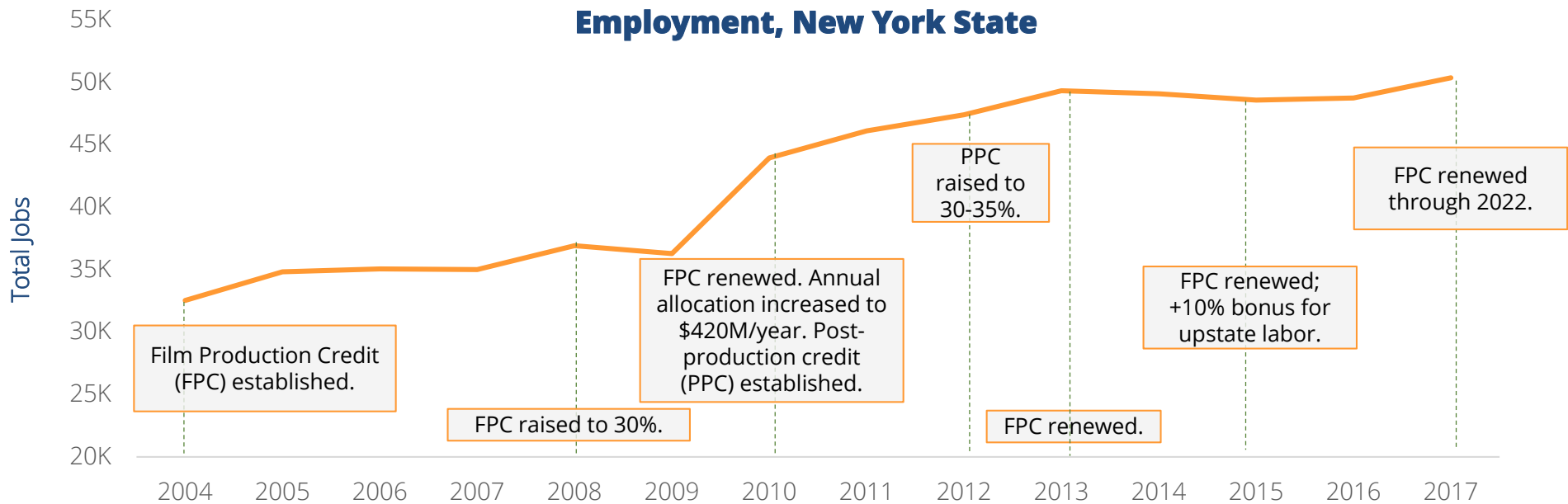
NYS Film & TV Production Sector Jobs by Occupation, 2017



- Actors, Producers & Directors
- Camera Operators & Editors
- Sound Engineering Technicians
- Designers
- Artists and Related Workers
- Office Clerks
- Writers and Editors
- Production & Planning Clerks
- Laborers and Material Movers
- Secretaries & Admin
- All Other

The New York State Film and TV Production sector is **stronger today than in any other period in modern history**, expanding consistently since the introduction of the Film Production Credit.

Film and Television Production Employment, New York State



Stability provided by the Credit has supported remarkable growth since its introduction in 2004.

The stability provided by the Credit is critical to industry expansion, with growth seen immediately following its introduction, expansion, and renewal. The Film and TV Production industry in New York State had been in consistent decline prior to the introduction of the Credit. This decline could be partially credited to the introduction of tax credits in Canada and other parts of the United States, which drew activity away from New York State.

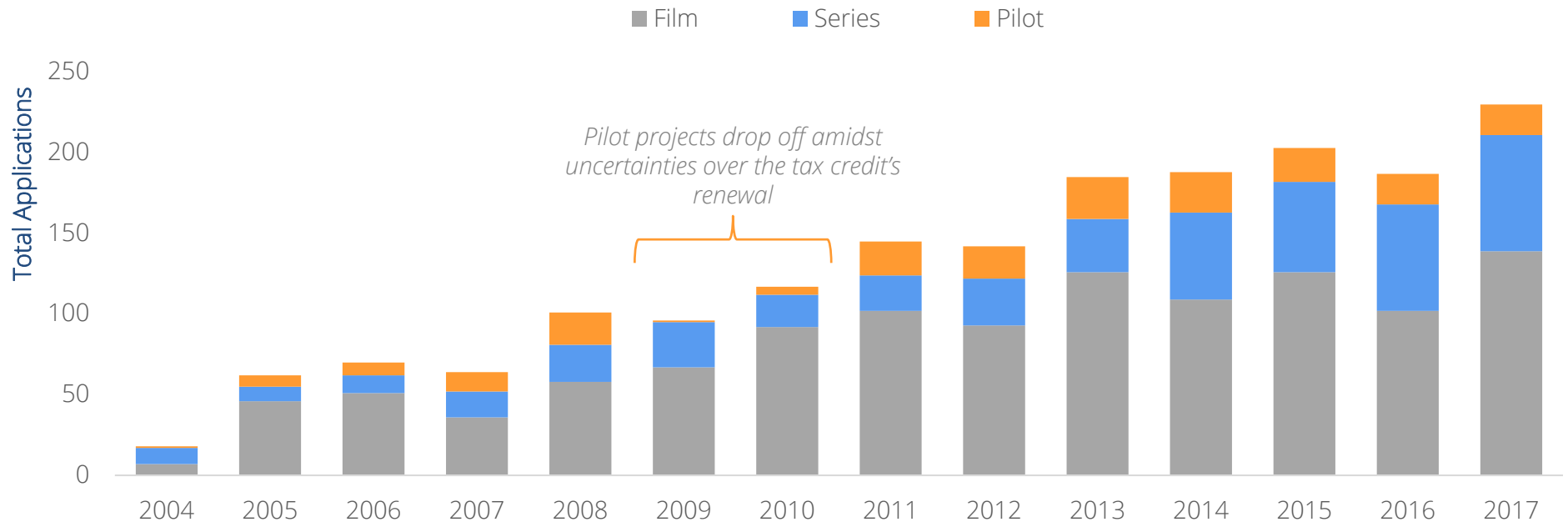
Source: EMSI.

Sectoral employment growth resumed following the introduction of the Credit in 2004, averaging 3.4 percent growth annually compared to a national rate of 1.7 percent within the total U.S. Film and TV Production sector.

Uncertainty over the future of the Credit caused job growth to plateau in the years leading up to renewal. Although, growth resumed following expansions in 2010 and 2015. **Job growth has also proven strongest during longer allocation periods**, with sustained growth seen from 2010 through 2013.

Television productions, which often span multiple years, **rely heavily on the predictability afforded by the tax credit** when making location decisions.

Total Qualified Productions in New York State by Type



Source: ESD.

A record 91 television productions applied to the tax credit program in 2017, a **54 percent increase** from five years ago. The number of film applications, in comparison, increased **10 percent** over that period.

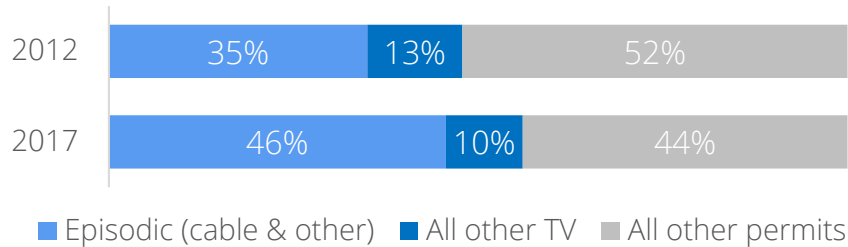
Television productions are particularly sensitive to changes in competitive dynamics, with uncertainties surrounding the future of the tax credit disproportionately affecting TV productions that span multiple seasons. For example, after then-Governor Chris Christie suspended New Jersey's film tax credit program in 2010, all three TV series shooting in the state halted local production, with one moving operations to Canada, another to New York, and

the third shutting down production completely.

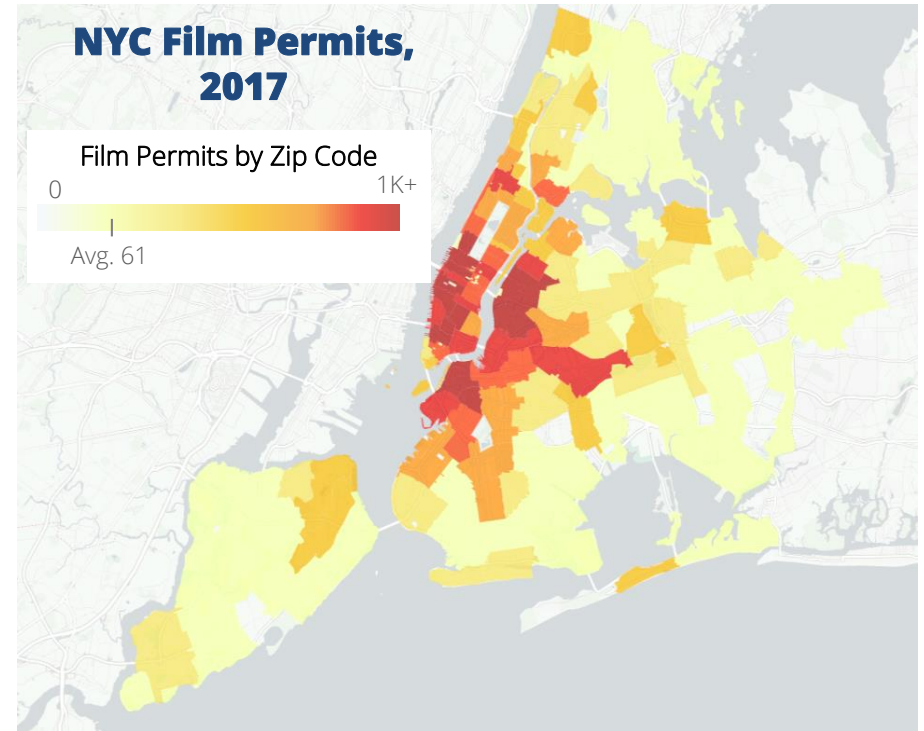
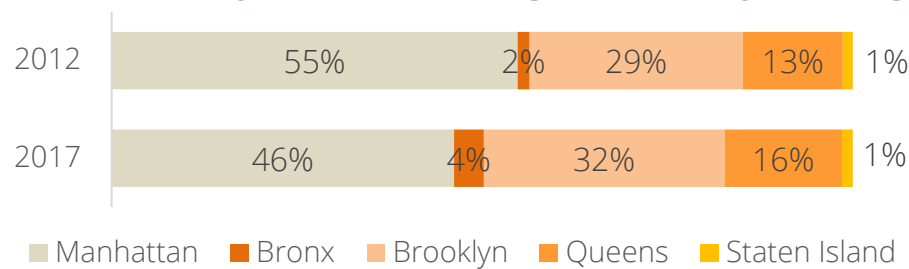
When the renewal of the NYS tax credit was up for debate in 2009, the number of TV pilots filmed in New York State fell to nearly zero, down from 20 the year prior, demonstrating the **importance of certainty regarding the future of the tax credit in attracting and retaining television productions.** While the recent multi-year extension of the Credit provides added assurance with respect to near-term competitiveness, one stage operator noted several instances in which prospective TV tenants decided not to shoot in New York City during times when the Credit had come back up for debate.

New York's desirability as a place to live and work has attracted a **robust pool of talent** able to fulfill the year-round employment requirements of a **growing television production sector**.

New York City-Issued Filming Permits by Type



New York City-Issued Filming Permits by Borough



New York's ability to respond to growing demand for episodic television has strengthened industry stability.

Growing demand for episodic television has been satisfied by New York City's robust network of local talent and infrastructure, with notable productions such as *Billions*, *She's Gotta Have It*, *Quantico*, *The Marvelous Ms. Maisel*, *Broad City*, and *The Deuce* recently locating in New York State. Studio operators have indicated that productions prefer to be located in New York City largely for creative reasons, supported by access to a stable base of talent seeking to live there.

New York City, the State's largest hub of production activity, issued more than 4,600 film permits to TV productions in 2017, representing 56 percent of all such permits filed that year. Episodic series comprised the largest sub-category of production permits, accounting for 46 percent of all permits issued in 2017, up from 35 percent in 2012.

Filming activity is also increasingly taking place in the outer boroughs, where the majority (54 percent) of New York City film permits were issued in 2017, up from 45 percent in 2012.

Source: New York City Mayor's Office of Media and Entertainment (MOME).
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The economic benefits of Film and Television Production extend to **businesses all across New York State**.



Buffalo

The Purge 4 was shot in Buffalo over a 3-mo. period in 2017, constituting the first major studio theatrical release to be shot entirely in the region, employing a record number of crew and ATL talent.



Hudson Valley

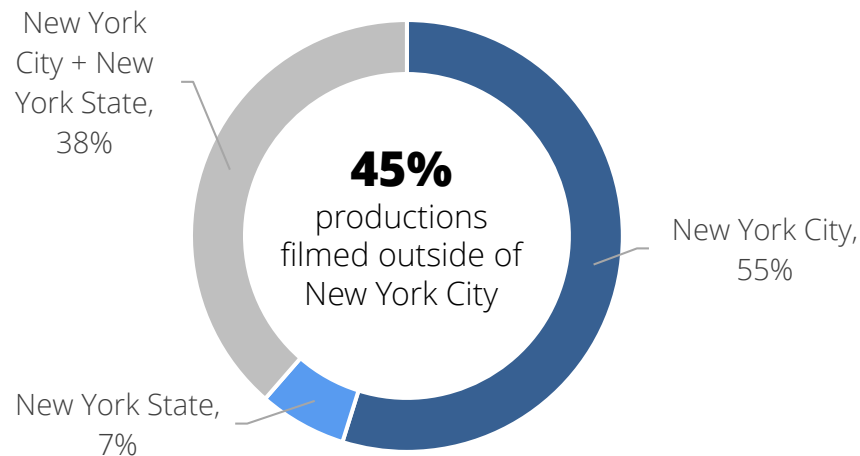
New Netflix series **Maniac** shot scenes in Ulster County in 2017, following up on the success of Paramount Pictures' **A Quiet Place**, which spent more than 120 days shooting upstate, generating \$21 million in local economic activity.



Syracuse

Four high school comedies were recently shot in Syracuse by production company American High, including **Banana Split**, which debuted at the L.A. Film Festival in September 2018.

Number of Productions Filmed in New York State, 2017



The Film and TV Production sector spans all corners of New York State, with **more than a quarter** (27 percent) of such firms located outside of New York City in 2017. Film and TV Production firms outside of New York City are also **predominately small businesses**, each employing an average of ~10 workers. More than **two-thirds of all counties in New York State had at least one Film and TV Production business** in 2017, speaking to the extensive breadth of the industry.

Source: ESD; EMSI; Buffalo Niagara Film Office; MPAA.

One-in-ten qualified production dollars were spent in New York State outside of the five boroughs, where more than **100 Film and TV Productions** (45 percent of total productions) were located or partially-located in 2017. Even those productions shot exclusively in New York City typically support Film and TV Production-related activity elsewhere across the state. Studio owners in New York City, for example, reported sourcing stage equipment from vendors located all throughout the state, including steel, sound proofing equipment, flooring, wall partitions, and doors.

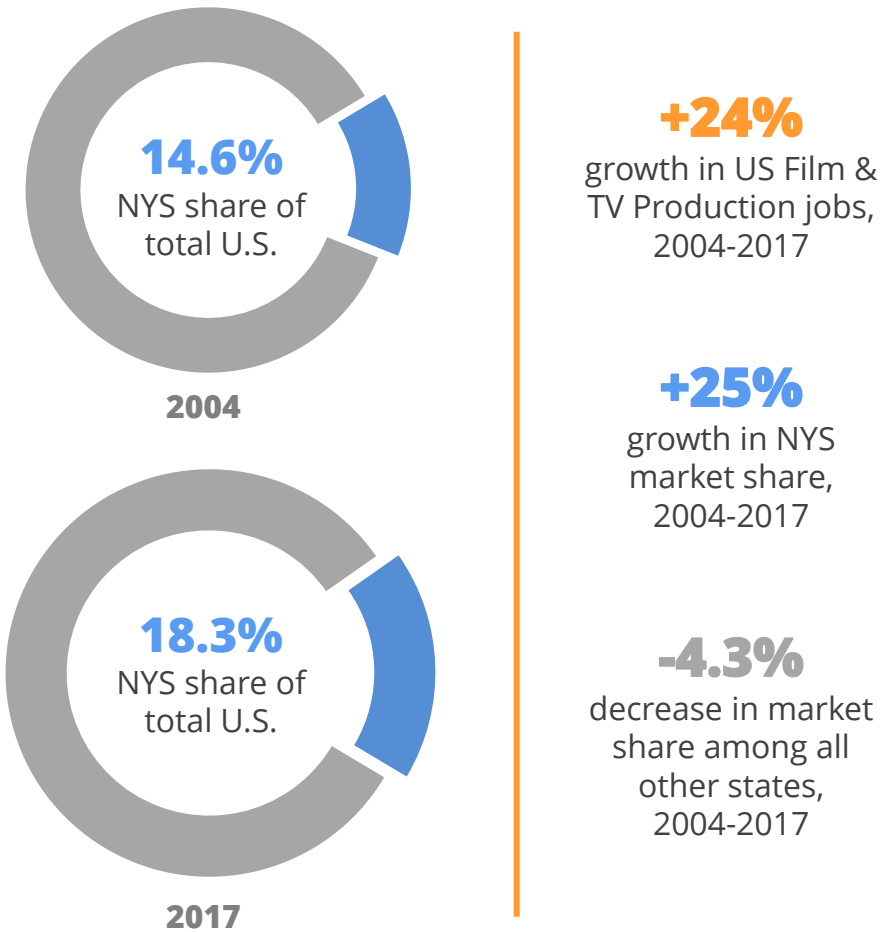
New York State is an **increasingly important center for Film and TV Production, outpacing nationwide growth** in the sector in recent years.

New York State's Film and TV Production sector is growing faster than the nation's.

New York State accounted for one out of every three Film and Television Production jobs added in the U.S. between 2004 and 2017, growing its share of total U.S. Film and TV Production employment from 14.6 percent in 2004 to 18.3 percent in 2017, the equivalent of a 25 percent increase in local market share.

Between 2004 and 2017, Film and TV Production sector employment in New York State grew by 55 percent, versus 19 percent growth seen among all other states. As a result, the collective market share among all other states outside of New York declined over the period, falling by more than four percent between 2004 and 2017 despite the increasing prevalence of tax credit programs outside of New York State.

Share of Total US Film and Television Production Industry Employment, 2004 - 2017

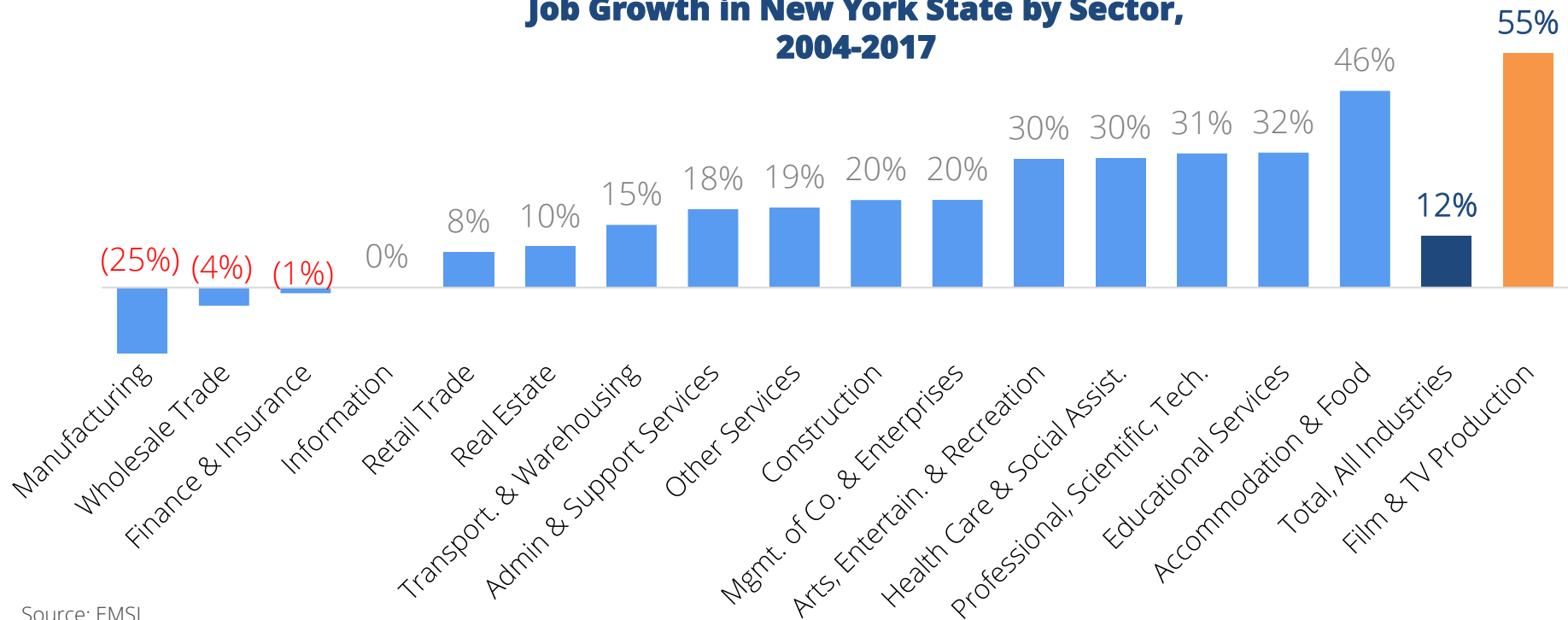


Source: EMSI

Note: Industry definition excludes jobs in other sectors that may engage in Film & TV Production activities (e.g. Independent Artists, Writers, and Performers). The above estimates should therefore be interpreted as conservative measures of total Film & TV Production-related employment.

Since the Credit was established, employment within the Film and Television Production industry has **grown faster than every other major sector in New York State.**

Job Growth in New York State by Sector, 2004-2017



Source: EMSI.

Since the introduction of the tax credit in 2004, employment within New York State's Film and TV Production sector has **grown by 55 percent**, expanding at **more than 4.5X the pace** of growth seen among all industries in the local economy between 2004 and 2017. As manufacturing and other sources of quality middle-class job opportunities continue a decades-long decline – the combined result of broader macroeconomic trends and advances in technology – Film and TV Production has emerged as a **resilient alternative for workers with similar skillsets.**

New York State's industrial economy – which includes manufacturing, warehousing, telecommunications, and other physical industries – shed nearly 60,000 jobs between 2004 and 2017. Once the epicenter of blue-collar job prospects, manufacturing employment declined by 150,000 jobs between 2004 and 2017. Helping to partially offset some of this loss, the Film and TV Production sector accounted for **one out of every seven new industrial jobs** added to the New York State economy between 2004 and 2017.

NEW YORK STATE FILM & TV PRODUCTION

Supporting Infrastructure & Businesses



Citing the credit, virtually all major studio operators reported recent or planned investments in infrastructure, **increasing New York's capacity to take on new production work.**

Predictably, the robust industry demand generated from multi-year extensions of the Credit has given stage operators the confidence to make **permanent investments in their facilities and operations.** The four largest studio operators in New York City have recently expanded and/or have active plans for future expansion as a result of increased demand for local Film and TV Production:

- **Broadway Stages**, which operates more than 50 stages totaling over 1.5 million sq. ft. across three boroughs, is constructing five new soundstages at a former correctional facility in Staten Island.
- **Kaufman Astoria Studios** is currently constructing two new spaces that will feature stages, ancillary support space, and subgrade parking. They plan to break ground on a new 100,000-sq.-ft. commercial office building within the year.
- **Silvercup Studios** expanded to the Bronx in 2016, adding four new stages totaling 115,000 sq. ft.
- **Steiner Studios** recently added six new stages to its 26-acre lot at the Brooklyn Navy Yard, bringing its total existing footprint to 760,000 sq. ft. At full build-out, the campus will total 1.8 million sq. ft. of production and related facilities.
- **York Studios** is set to unveil five new stages at its Bronx campus in early 2019, with an additional 180,000 sq. ft. expected to break ground in 2019.

Since 2016, more than **30 soundstages** have been constructed or are currently in the active pipeline across New York State, totaling more than **\$550 million in private investment.**

Source: HR&A interviews with major studio operators in New York State. Totals reflect expansions or investments undertaken since 2016, as well as those currently under construction or in active phases of pre-development.

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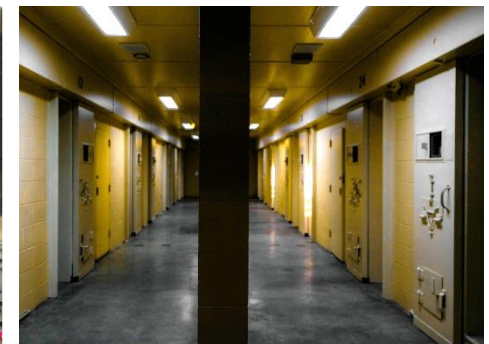
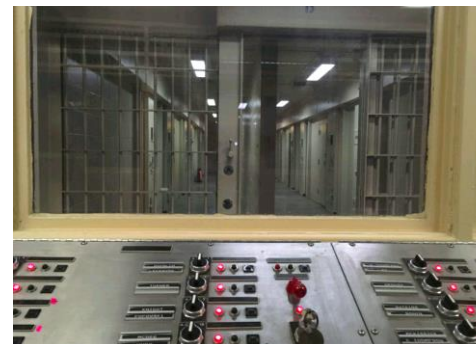
Recent & Planned Investment Activity (2016 -)

 <p>Steiner Studios (Brooklyn Navy Yard) 6 stages, 179,000 sq. ft. <i>(125,000 sq. ft. planned)</i></p>	 <p>Silvercup North (Bronx) 4 stages, 115,000 sq. ft.</p>
 <p>Broadway Stages (Staten Island) 5 stages, 100,000 sq. ft.</p>	 <p>Kaufman Astoria (Queens) 2 stages, 90,000 sq. ft. <i>(100,000 sq. ft. planned)</i></p>
 <p>Eastern Effects (East NY) 2 stages, 25,000 sq. ft.</p>	 <p>York Studios (Bronx) 5 stages, 170,000 sq. ft. <i>180,000 sq. ft. planned</i></p>
 <p>Michelson Studio II (Middletown) 1 stage, 60,000 sq. ft.</p>	 <p>LUMBERYARD Studios (Catskill) 2 stages, 12,000 sq. ft.</p>

Broadway Stages is bringing new life to Staten Island's South Shore, with plans to transform a former correctional facility into a full-service film campus complete with five new stages.

Broadway Stages, founded in 1983 as a single soundstage on Broadway in Astoria, Queens, has grown into the largest Film and TV Production operator in New York State, operating more than 50 stages totaling a combined 1.5 million sq. ft.. In 2017, Broadway Stages acquired the **70-acre former Arthur Kill Correctional Facility on Staten Island's South Shore** for \$7 million, with plans to invest an additional \$20 million in transforming the 400-cell facility into a full-service film campus. The existing prison structures have already hosted major productions such as *Ocean's 8* and *Orange is the New Black*. The company recently completed construction on a new 9,700 sq. ft. soundstage, and is planning on building four additional stages. The finished project will contain 100,000 sq. ft. of studio space and generate 1,500 high-quality jobs. Broadway Stages has also **purchased property in the Village of Hastings-on-Hudson to meet growing demand** for film and TV production in New York State.

At each of its locations, Broadway Stages strives to meet the needs of a thriving industry while also investing in the surrounding community. In Staten Island, Broadway Stages is providing free shop space to **Local United Scenic Artists (USA) 829** for its three-year scenic artist apprenticeship program. Broadway Stages also employs local businesses and vendors to meet its production needs, and is creating an online jobs portal to connect local vendors and professionals – from local coffee shops and restaurants to woodworkers, builders, set designers, lighting experts and more – to productions being shot at its Staten Island, Queens, and Brooklyn stages. From the Park Deli in Greenpoint to Nucor's steel manufacturing plant upstate, Broadway Stages and its clients directly support hundreds of jobs across New York State.

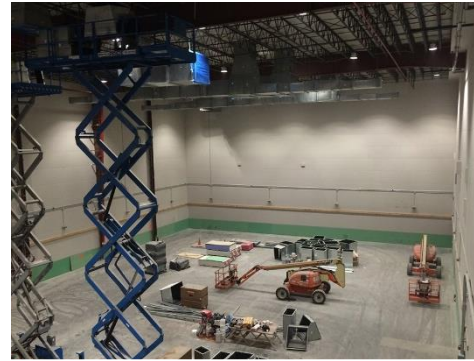


Silvercup Studios is contributing to the economic revitalization of the South Bronx, converting an old warehouse in the Port Morris neighborhood into its third production complex.

In 1983, **Silvercup Studios** set up shop in the former Silvercup Bakery building in Long Island City (LIC), eventually growing to 19 stages operating out of two locations in LIC. In 2016, **Silvercup debuted its newest location in the Bronx following a \$46 million investment** that transformed an existing warehouse into a 115,000-sq.-ft. production complex. Dubbed Silvercup North, the campus includes four production studios, an on-site lighting and grip department, production offices, and a lumber yard. The facility's ceiling heights – the tallest of any studio in New York City at 50 feet – can accommodate multi-story set designs.

Upon opening, Silvercup North launched an internship program with a consortium of Bronx-based universities, including **Lehman College, Bronx Community College, Fordham University, and Hostos Community College**. The apprenticeship provides students with first-hand experience working on the sets of film or television productions shooting at the studio. Silvercup has also continued to invest in its two LIC locations, including through comprehensive upgrades to LED lighting and ongoing engagement with the local creative community.

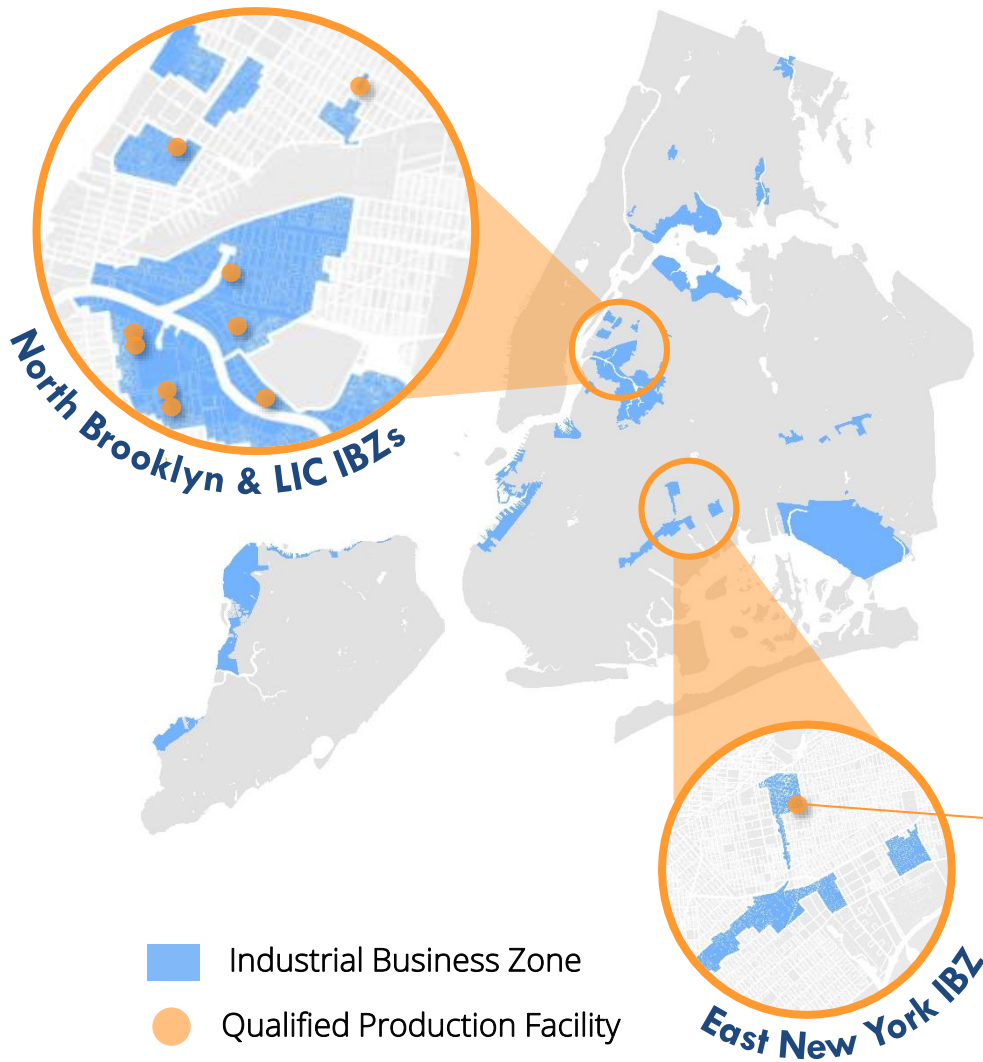
Silvercup executives spoke to the importance of the tax credit in driving demand for local film and television production. The television show *Ugly Betty*, which shot its first two seasons in Los Angeles, moved production to Silvercup's second Long Island City location shortly after the tax credit was expanded in 2008. The reverse has also occurred, with several New York-based productions departing for Canada amidst concerns that the tax credit would not be extended.



Silvercup North in the Port Morris section of the Bronx (above) and Silvercup's iconic sign in LIC.

Tremendous growth within the Film and TV Production sector is spurring the **revitalization of underutilized industrial assets into 21st century job centers** all across New York State.

NYC Industrial Business Zones



As traditional manufacturing activity declines across New York State as throughout the U.S., **expanded studio capacity is helping to reactivate underutilized industrial assets and revitalize disinvested communities.**

The high cost of real estate in New York City can constitute a major challenge for local film and TV production given the high spatial intensity of the sector, which requires room for equipment and set construction, storage, and transportation, in addition to unobstructed stage areas for film shoots. Industrial campuses such as the Brooklyn Navy Yard and the former Apollo Lunar Modules assembly plant on Long Island provide optimal settings for contemporary film hubs, offering both sufficient buildings and adjacent areas, as well as close proximity to talent and supplier businesses. Most soundstages in New York City are located within an Industrial Business Zone (IBZ), or one of 21 protected areas across the outer boroughs designated for industrial and manufacturing use. The North Brooklyn/Maspeth and Long Island City IBZs are home to a cluster of qualified production facilities, including **Silvercup Studios, Kaufman Astoria, Broadway Stages, York Studios, and Cinema World.**

Eastern Effects saw an opportunity to expand at a reasonable price point with the renovation of a 25,000-sq.-ft. warehouse within the East New York IBZ, a 57-block area in central Brooklyn, into 2 new soundstages, bringing local jobs paying above prevailing wage to the historically-disinvested industrial area. Eastern Effects is a long-time partner of the 'Made in NY' Production Assistant Training Program.

Warehouse conversions and other non-qualified facilities are cropping up across New York State in response to capacity constraints among the major soundstages in New York City.

With many New York City-based studios operating at full capacity, **smaller facilities are being built across the state to accommodate excess demand**. Such facilities typically cater to productions with smaller space needs, including indie films, talk/game shows, cooking shows, documentaries, and commercials. While much of this work is not eligible for the tax credit, these types of production activities **benefit from the large pool of local talent and supporting infrastructure** that the tax credit has helped to retain and grow in New York State.

Virtually all new stages occupy former warehousing structures, with only two instances of ground-up stage construction in New York State to-date (Kaufman Astoria and Steiner Studios). While **adaptive reuse** projects typically cost less than ground-up construction, soundstages are specially-built to serve the needs of the Film and TV Production sector, and include improvements such as air conditioning, sound proofing, and extensive lighting and equipment upgrades that are not readily transferable to other industries. In order to ensure that stages remain available for extended film shoots, operators are furthermore often prevented from renting out spaces to non-production uses such as sporting events and concerts, **reinforcing the need for permanent and predictable sources of demand** within the Film and Television Production sector.

Syracuse Studios

Liverpool

In 2017, Hollywood writer and director Jeremy Garelick purchased a former middle school building dating back to 1928 in suburban Syracuse, transforming the property into a film set for a series of films being shot by his production company, American High. Garelick launched a production training program, dubbed The Academy at Syracuse Studios, in the fall of 2018, which will provide internships to students of local colleges each semester.



Velocity Media

Yonkers

Velocity Media acquired a 10,000-sq.-ft. former banana processing facility in 2017 that it is repositioning into a sound stage to support special effects and web content production. The facility is anticipated to open in late 2018.



New York's Film & TV Production sector is setting the standard for sustainable production, **curbing the industry's environmental impact while facilitating broader community benefits.**

A general point of criticism directed at the Film and TV Production industry is that it is not environmentally sustainable: Productions tend to build massive single-use sets that are thrown away at the end of shooting and re-built from scratch for incoming productions.

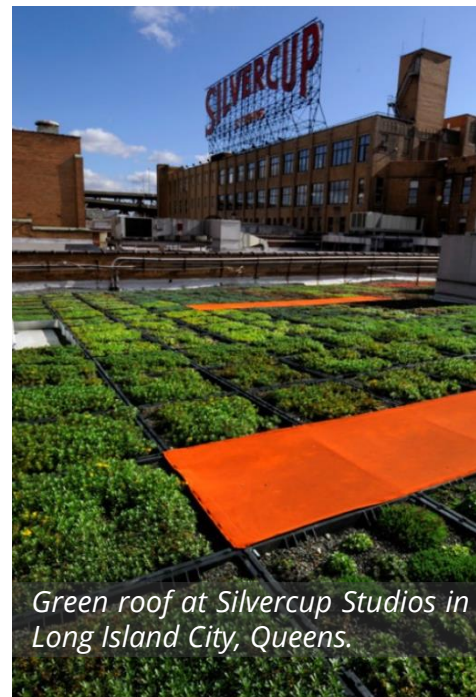
Enter the **NYC Film Green Program**, a first-of-its-kind government-led effort to promote sustainability within the Film and TV Production industry. The voluntary program began in 2016, spearheaded by the NYC Mayor's Office of Media & Entertainment (MOME). Already, more than **20,600 pounds** of food and **8,750 pounds** of set materials have been donated through the program.

Studios in New York are also taking their own steps to mitigate environmental impacts. Broadway Stages debuted the **world's first solar-powered soundstage** in 2010, going on to install 50,000 sq. ft. of solar panels across multiple stages, enough to offset **one-third of its annual electricity consumption**. Broadway Stages also partnered with the NYC Audubon Society to erect a **22,000-sq.-ft. community green space and bird sanctuary** atop one of its Greenpoint properties. Silvercup Studios similarly operates a **35,000-sq.-ft. green roof - the largest in NYC** - atop its LIC studio, which helps to lower the building's heating and cooling costs while reducing air pollution generated from heavy traffic and industrial uses. Silvercup Studios also partners with Materials for the Arts, a locally-based reuse center that connects companies with thousands of nonprofit organizations, arts programs, and public schools, to **donate extra set materials to the local community**.

Source: MOME, Broadway Stages, Silvercup Studios.



Kingsland Wildflowers Green Roof & Community Engagement Center atop Broadway Stages facility in Greenpoint, Brooklyn



Green roof at Silvercup Studios in Long Island City, Queens.



Set materials from completed shoot at Silvercup North destined for local non-profits and homeless shelters as part of NY Film Green program.

A **network of local vendor and supplier businesses** has also grown in response to increased industry demand and studio expansion.

Vendors and suppliers are setting up shop in close proximity to film production studios, and capitalizing on increased demand being generated as a result of the tax credit. In response to increased time pressures from on-demand, episodic television, suppliers and vendor businesses serving the TV production sector are sourcing **local inputs**. York Studios, for example, is using a Bronx-based cement company for all of the foundation and roofing work at its five new sound stages currently under construction in the Bronx.

From construction to operations, studios and soundstages rely on a robust network of local vendors, suppliers, and crew members to enable their success. Without a small army of vendors and suppliers, current levels of film activity would not be possible. These vendors, many of whom are small multi-generational family businesses, are a stable source of employment in a traditionally-impermanent industry. Vendor services range from supplying the lumber used to construct film sets to providing the props and furniture that contribute to a sense of place. Vendors provide the costumes, makeup, and accessories that disguise actors as well as the lighting, cameras, and hardware needed to capture them on film.

Vendors and suppliers are similarly dependent upon Film and TV Production as a critical source of business, and many local vendors suggested they would not be able to sustain operations and existing headcounts were demand to recede. Nearly all vendors interviewed similarly said that if production activity were to move to other locations, their businesses and the jobs associated would likely follow.



Prop Rentals

Eclectic/Encore Properties, located in Long Island City, is one of the largest prop houses on the east coast. **Newel Props**, an antiques dealership and film, TV, and events props company, has operated in NY since the 1930s.



Set Construction

LeNoble Lumber, a major lumber supplier founded in 1965, services film and TV sets across New York, employing ~100 workers. **Epstein's Paints**, now in its 4th generation, has been dedicated to serving the entertainment industry since the 1960s.



Hardware

Mutual Hardware supplies hardware and rigging equipment to the local Film & TV Production industry. Its sister company, Alcone, provides makeup to the industry, and recently expanded to commercial retail outlets.



Transportation

Haddad's, a cast, hair, and makeup trailer company with branches all across the east coast, is an immediately-recognizable mainstay of Film & TV Production activity in New York.

Vendors have **expanded hiring** and taken **greater entrepreneurial risks** in order to meet increased demand for Film and TV Production generated through the tax credit.

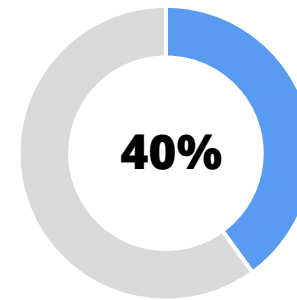
Vendors reported that the steady stream of work afforded to them via the Credit has enabled them to take risks and make future-oriented investments that would not have been possible under less certain conditions. **Newel Props**, an antiques dealership and props rental company for movies, television, and events that dates back to the 1930s, made several acquisitions of prop portfolios to expand its offerings following the introduction of the tax credit. As the term on its Manhattan lease came close to expiring, **Eclectic/ Encore Props**, a prop house that has serviced productions across the nation for more than 30 years, opted to purchase a building in Long Island City rather than find an alternative rental location, a decision that owner Suri Bieler attributes to a reduction of risk exposure, driven by the tax credit.

LeNoble Lumber, a major lumber supplier for film and television set construction in New York, has doubled the number of trucks in its fleet and dramatically expanded warehousing capacity since the enactment of the Credit. With confidence in a sustained pipeline of work, LeNoble was able to introduce innovative environmentally-friendly lumber products certified by the Forest Stewardship Council to support sustainability within the Film and TV Production sector.

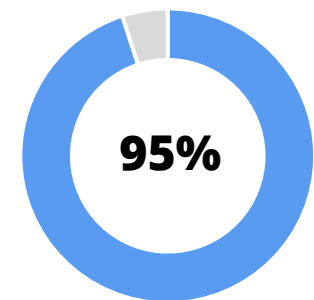
Numerous vendors report that the Credit has directly affected employment and hiring decisions. LeNoble Lumber doubled its headcount from 50 to 100 employees since the Credit was expanded in 2008. **Mutual Hardware** and its affiliate **Alcone Company**, which supply hardware and makeup to the Film and TV Production industry, respectively, similarly doubled its employment to ~50 total workers today, while Newel Props has added five new positions, with additional hires anticipated.

Film & TV Production as a % of Total Business

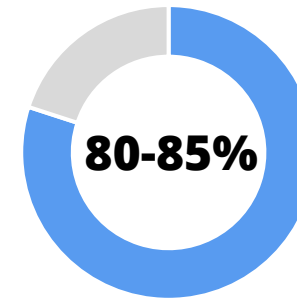
■ Film Production ■ Other



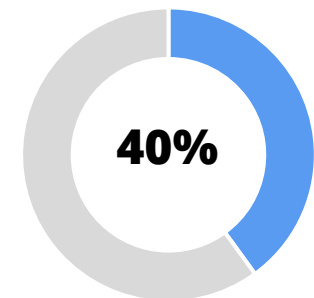
LeNoble Lumber
(lumber for set construction)



Mutual Hardware
(hardware, rigging, equipment)



Epstein's Paint
(wallpaper, flooring, window treatments)



Newel Props
(prop rentals)

NEW YORK STATE FILM & TV PRODUCTION

Workforce Inclusion & Development



Film and Television Production unions have seen **substantial growth in local membership, earnings, and benefit contributions** since the Credit was established.

New York has a long tradition of union representation within the Film and TV Production sector, with unions successfully fighting for **higher wages, job security, and full health and pension benefits** for thousands of local members. Union-secured wages and benefits help to offset higher costs of living, making it possible for the sector to continue to grow amidst increasing affordability concerns. As other types of freelance-based work continue to be shut out from employer-provided health and retirement benefits, unions serving the Film and TV Production sector in New York State are **setting an important precedent** for what robust worker protections could look like within the context of a growing 'gig economy.'

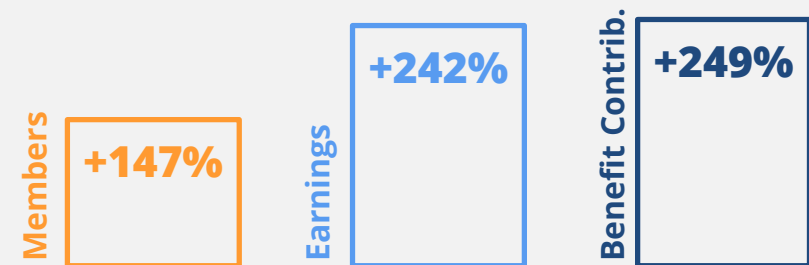
All of the major Film and TV Production unions have **grown their working membership substantially** since the Credit was introduced in 2004. While local SAG-AFTRA membership is up 9 percent, growth has been particularly pronounced among those representing below-the-line (BTL) labor. The number of local Teamsters, which includes workers in transportation, casting, and locations, has grown by nearly **2.5X** since 2004, with total benefit contributions increasing **3.5X** between 2004 and 2017.

BTL unions have been operating at or near **full-employment**, and are often forced to rely on supplemental workers to keep pace with demand. Local 52, which represents skilled craftspeople and studio mechanics, grew local membership by **78 percent** between 2004 and 2017, while the total number of hours worked **increased 3.4X** over the period. As a result, the average annual number of hours worked increased substantially, going from 898 hours per year per member in 2004 to **1,708 hours per member** in 2017, roughly the equivalent of 35 hours per week assuming a 50-week work year.

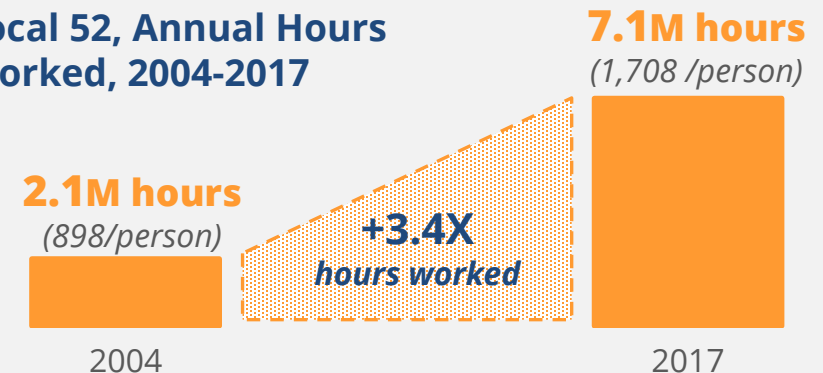
SAG-AFTRA Total NYS Earnings, 2004-2017



Local 817 NYS Growth, 2004-2017



Local 52, Annual Hours Worked, 2004-2017



Source: IATSE Local 52, Local 817, SAG-AFTRA, DGA, Earnings adjusted for inflation.

The Film and Television Production sector is a critical source of **economic mobility for New Yorkers** of all educational backgrounds and experience levels.

Workers supported by qualified productions earned **\$90,000** per year, on average, above the \$87,400 earned on average by all workers in New York State. Reflecting the non-traditional nature of their work, Film and TV Production workers also performed better on an hourly basis, earning a median wage of **\$33.30 per hour** in 2017, **37 percent higher** than the statewide median of \$24.20 per hour across all industries.

More than **four-in-ten jobs** within the local Film and TV Production sector are available to workers **without a bachelor's degree**, offering pathways to better-paying employment opportunities for local New Yorkers. Occupations within the Film and TV Production sector that do not require a post-secondary education – accessible to anyone without an Associate's degree or above – earned median wages of **\$21.30 per hour** in 2017, **23 percent higher** than the median wage across all entry-level occupations statewide and **69 percent higher** than entry-level positions within the services sector.

The local trades and guilds, which represent writers, directors, actors, mechanics, and workers in transportation, locations, and casting, are a critical source of quality employment for Film and TV Production workers with lower levels of formal education. In 2018, approximately **one-third** of local trade members reported having less than a four-year degree.¹ Trends within the local trades further speak to the growing volume of work within the sector. The International Alliance of Theatrical Stage Employees (IATSE) Local 52 typically operates at **full employment** and frequently calls upon applicants to supplement its workforce. Local 52 members, over **40 percent** of whom have less than a four-year degree, earn approximately **\$100,000/year**, on average, and receive comprehensive health and retirement benefits.

\$90,000

average annual wage among
Credit-supported jobs

44%

of Film & TV Production jobs
accessible to workers without a
4-year degree

1/3

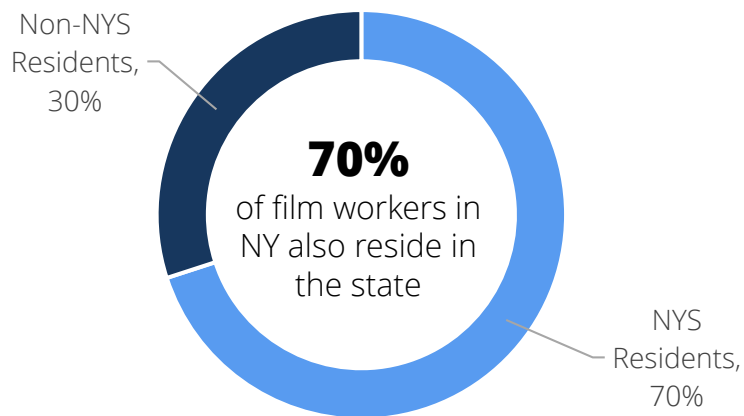
trade/guild members with
less than a bachelor's

1. Based on survey of 1,683 local members of IATSE Local 52, SAG-AFTRA, and WGA-East conducted in May/June 2018.

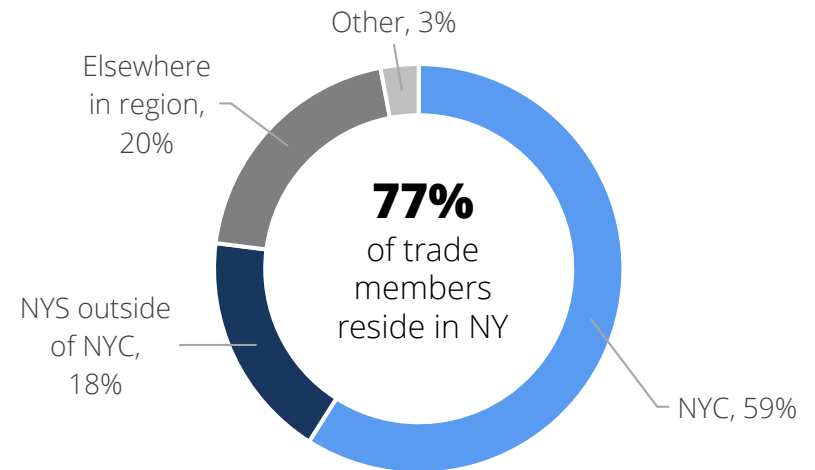
Source: EMSI

Local New Yorkers are the primary beneficiaries of a thriving Film and Television Production economy.

Residency Trends Among Film & TV Productions in New York, 2016



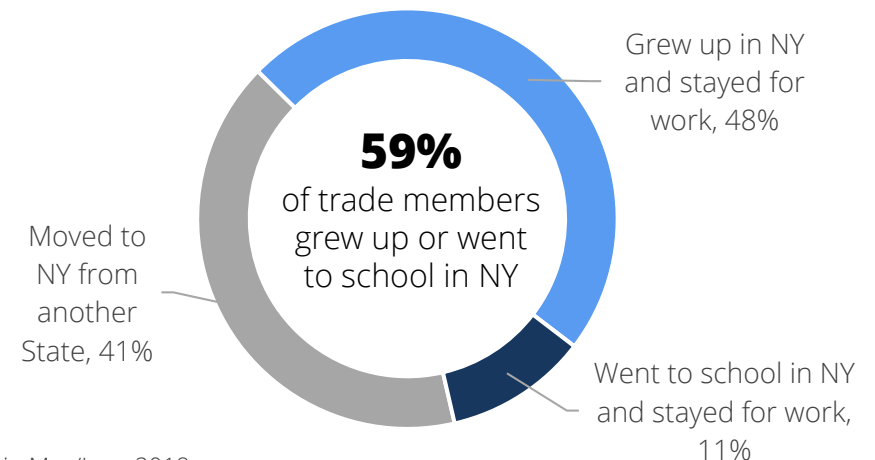
Primary Residency of Local Trade Members, 2018



Heightened demand for film and TV production is providing jobs for local New Yorkers. **Seven out of every ten** workers employed on film and TV productions in New York State also resided within the state in 2016.¹ Local residency trends are even more pronounced among trade and guild members, **77 percent** of whom call New York State home.²

Robust demand within the industry has allowed New Yorkers who were born here to stay here. Demand is encouraging local students to remain in New York after completing school. **59 percent** of trade members reported having grown up or gone to school in New York State, reflecting the sector's commitment to fostering and retaining local talent.

Local Trade Members' Reason for Moving to New York, 2018

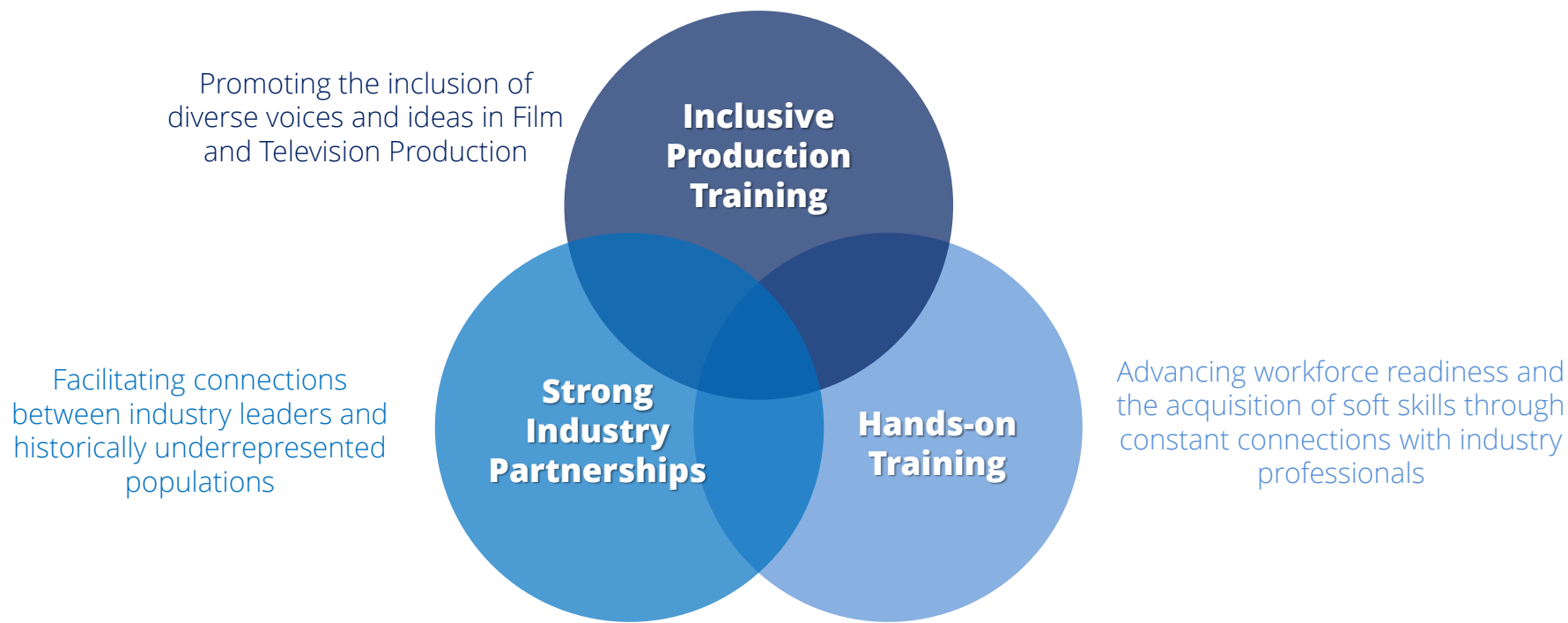


1. Source: MPAA

2. Based on survey of 1,683 local members of IATSE Local 52, SAG-AFTRA, and WGA-East conducted in May/June 2018.

A thriving Film and TV Production sector has renewed focus on fostering talent, with growing efforts to promote access to opportunity among a **wide range of New Yorkers**.

Inclusive Pathways to Economic Opportunity



Film and TV Production has long suffered from underrepresentation of women and minorities within its ranks. Women make up 39 percent and non-whites comprise only 31 percent of all workers within the Film and TV Production sector in New York State. In comparison, women make up more than half of all employees statewide, while minorities make up more than 40 percent of workers across all industries.

This issue is not unique to New York State. In California, for instance, women and minorities make up 37 percent and 33

percent of all workers within the sector, respectively. However, New York-based institutions are at the forefront of efforts to enhance inclusivity within the Film and TV Production industry, thanks in part to robust demand generated by the tax credit. From connecting disadvantaged youth to production assistant positions, to offering the State's first public MFA program, New York is leading the way in narrowing the deep divide between those who make films and those who consume them.

Source: EMSI.

New York State is leading the charge to **train the next generation of workers for the Film and TV Production industry.**



Technological advancements have resulted in more New Yorkers having access to digital media content than ever before. Now, industry advocates are hoping to achieve similar levels of ubiquity when it comes to content creation, ensuring that the voices and ideas of New Yorkers of all races, genders, and socioeconomic backgrounds can be heard.

The **Made in NY Writers Room** fellowship, run in collaboration by the Writers Guild of America, East (WGAE), the Mayor's Office of Media and Entertainment, and the New York City Department of Small Business Services, is setting out to change the legacy of how people 'get in' to the industry. Recognizing that a lot of above-the-line roles are relationship-driven rather than strictly skills-based, the program seeks to foster the development of soft skills among traditionally underrepresented populations within the field, helping participants learn how to pitch projects and converse with producers in addition to vetting scripts. The program received 500 submissions and served 13 finalists in its inaugural year.

WGAE has further joined the Producers Guild of America, East and SAG-AFTRA in establishing a new **Inter-Guild Diversity Coalition** aimed at advocating for greater representation within the respective fields. The group meets quarterly to share best practices on how to advance the meaningful representation of historically underrepresented groups.

Stockade Works is a non-profit workforce development organization looking to leverage growth in Film and TV Production to drive change in distressed areas throughout the Hudson Valley. Its programming is similarly predicated on disrupting the status quo to promote greater access and inclusion within the industry.



Made in NY Writers Room

Six-month paid fellowship program pairing local screenwriters with industry mentors and veteran showrunners to help minority and female screenwriters break into the industry.



Stockade Works

Dedicated to training the local workforce, an area spanning 57 distressed Census tracts in Kingston, NY, the program prepares workers for opportunities in Film and TV Production. Women made up half of all participants in Stockade Works' inaugural Crew Boot Camp.

The local Film and TV Production industry is **leading workforce readiness and skills development by developing strong partnerships** between educators and industry professionals.

Hands-on Training

New York educational institutions have benefited from the increased local Film and TV Production activity supported by the Credit, as those in the industry are able to serve as both practitioners and educators. The founders of two new graduate film programs in NYC – the first an offshoot of Brooklyn College and the other a forthcoming NYC-based branch of St. Bonaventure – point to the ready access to industry professionals and trained craftspeople as a key competitive advantage.

The **Feirstein Graduate School of Cinema**, which is co-located with Steiner Studios at the Brooklyn Navy Yard, provides near-constant opportunities for practicable skills development and collaboration with other industry professionals. The program hosted more than 120 visiting filmmakers in 2017, and its predominately adjunct faculty are also all active in the industry. As founding director Jonathan Wacks asserts, **“If you want to be a doctor, you do your internship in a hospital... If you want to be a filmmaker, you do it on a film lot.”** Feirstein is also keenly focused on promoting inclusion, and serves a predominately local, and traditionally underrepresented student body. 65 percent of its students are New York residents, half of all students are female, and 45 percent are non-white.

St. Bonaventure University is also set to debut a new MFA program co-located with another major NYC-based studio in 2020. The Feature Film Conservatory will operate much like a full-time job, allowing students to both build workforce readiness while completing the program within a much-condensed one-year timeframe. The program concludes with a collective feature film capstone, carried out under the supervision of industry professionals. All film costs – a portion of which may be reimbursed via the Credit – are covered by tuition, and students receive a share of any profits earned as a result.



Feirstein Graduate School of Cinema

The first public MFA program in NY and co-located within the largest film lot outside of Hollywood, Feirstein offers a 2-year MA program in Screen Studies and 3-year MFA program in Cinema Arts.



St. Bonaventure Feature Film Conservatory

A forthcoming one-year MFA program similarly co-located within a major studio lot. The program is expected to make its debut in 2020.

Source: “What Does a Diverse Hollywood Look Like? This Brooklyn Film School,” H. Stapinski for *The New York Times*, 2/28/2017.

Successful workforce development efforts require **strong industry partnerships**, something local Film & TV Production stakeholders have readily embraced.



Workforce development cannot occur in isolation; it requires constant contact with industry professionals in order to remain responsive to the needs of employers. Local education and workforce development programs interviewed for this study reported that the Film and TV Production industry has been a willing and active partner in fostering local talent.

For more than a decade, the **Made in NY PA Training Program** successfully trained low-income New Yorkers for entry-level production assistant positions for over a decade on the hard and soft skills and connections necessary to break into the industry. The PA Training Program has a long-lasting relationship with Eastern Effects, a soundstage operator and equipment rental company based in Brooklyn, placing numerous participants in its grip/lighting rental business. The PA Training Program also counts among its many partners Edge Auto, one of the largest transportation vendors in New York, as well as a host of other small production companies. The program provides a majority of participants with sustainable career pathways, with nearly three-quarters (73 percent) of participants still working in the industry two years out.

Reel Works operates a similarly robust partnership model, and describes itself as the “only digital media educator and filmmaking program that matches teens 1:1 with professional filmmaker-mentors to tell their stories and have their voices heard.” Program partners include IATSE Local 52, which is supporting a new studio mechanic training program, and acting advisory and director boards that include filmmakers, editors, actors, producers, entertainment lawyers, talent managers, and technologists. The program further receives support from HBO, Viacom, CNN, and The Academy of Motion Picture Arts & Sciences, helping to serve more than 800 youths annually.



Made in NY PA Training Program

Run in conjunction with MOME and Brooklyn Workforce Innovations, offers free intensive training and job placement services to low-income New Yorkers.



Reel Works

Provides free filmmaking programs for local at-risk youth, more than 50% of whom report working in the media industry five years out.



Film Production Training Program

14-week training program to prepare 100 student/year to work in union trade crafts. Launching in Winter 2019, the program is a joint effort between the State, IATSE Local 52, and Bronx Community College.

FILM PRODUCTION TAX CREDIT

Economic & Fiscal Benefits



The **Film Tax Credit Program** has contributed to the **resurgence of a dynamic Film and TV Production industry** in New York State, supported by an incredible depth of local talent.

Ever since Thomas Edison debuted the first commercial motion picture at the corner of Broadway and 27th Street in 1894, New York has been a **hub for Film and Television Production activity**. The commercialization of television during the 1950s led to New York's emergence as a 'TV town,' bringing with it a massive upsurge in local production activity and employment in ancillary industries such as advertising. Over time, as land prices skyrocketed and the spatial needs of the sector grew, New York became less competitive. To allow New York to remain an attractive place to film and produce motion picture and television programs, New York State enacted the Empire State Film Production Tax Credit in 2004.

The Program, which was recently extended through 2022, has two components: The **Film Production Credit (FPC)**, available to qualified production companies that film a substantial portion of their project in NYS, and the **Post-Production Credit (PPC)**, available to projects that were filmed predominately outside of NYS and that contract with NYS companies specializing in post-production and/or visual effects and animation work.¹

Program credits of **\$420 million per year** can be allocated to qualified productions in the form of fully-refundable credits equal to **30 percent of qualified production costs** incurred in New York State. Of this total, up to \$25 million may be dedicated to post-production activities. Annual allocations roll over to the following year if credits go unused. The 2015 renewal of the credit also introduced a **10 percent bonus credit for upstate labor** up to a total of \$5 million annually, with aims to attract productions to areas outside of New York City.

Legislative Timeline

2004

FPC established, offering a 10% credit on 'below-the-line' (BLT) expenditures

2008

FPC extended and expanded to cover 30% of BTL expenditures

2010

PPC established at 10% of qualified spending

2012

PPC increased to 30%, with additional 5% credit for qualified spending outside the Metropolitan Commuter Transportation District

2015

10% bonus credit for qualified labor expenses in certain upstate counties added to FPC/PPC

1. A project cannot claim the film production credit and the post-production credit for the same qualified post-production costs.

Industries that directly support Film and TV Production drive **increased local spending on accommodations, food, and other needs.**

The Film and TV Production sector sources inputs from all corners of the local economy.

The industries that directly support the Film and TV Production sector, including stages and local vendor and supplier businesses, generate significant economic activity across other seemingly unrelated industries. As Hal Rosenbluth, president of Kaufman Astoria Studios, observed, **“To visualize the positive effects of the film industry on a local economy, stay through to the end of the credits.”**¹

Film and TV Production requires physical inputs for the design and construction of sets; prop rentals and fashion design to contribute to a sense of place; technology and hardware to support shooting and post-production; literary and acting talent to provide creative input; a slew of supporting services such as catering and accommodations to support crew members; and transportation to move resources and materials to and from production sites. An expanded and stable Film and TV Production sector provides regular patronage for such businesses, complementing and strengthening existing sources of revenues.

Small local businesses such as delis, coffee shops, and convenience stores also stand to gain from a stable Film and TV Production sector, including in formerly industrial areas where other types of commerce have eroded. For example, in the Greenpoint neighborhood of Northern Brooklyn, demand driven by the neighboring Broadway Stages helped a local deli with strong roots in the local community stay in business in the face of rising rents. Broadway Stages has further supported the expansion of a local coffeehouse to several additional locations.^{2,3}

1. NYCEDC

2. *TV as New York Growth Industry: ‘Quantico’ Is Coming to Town*, The New York Times, 2016.

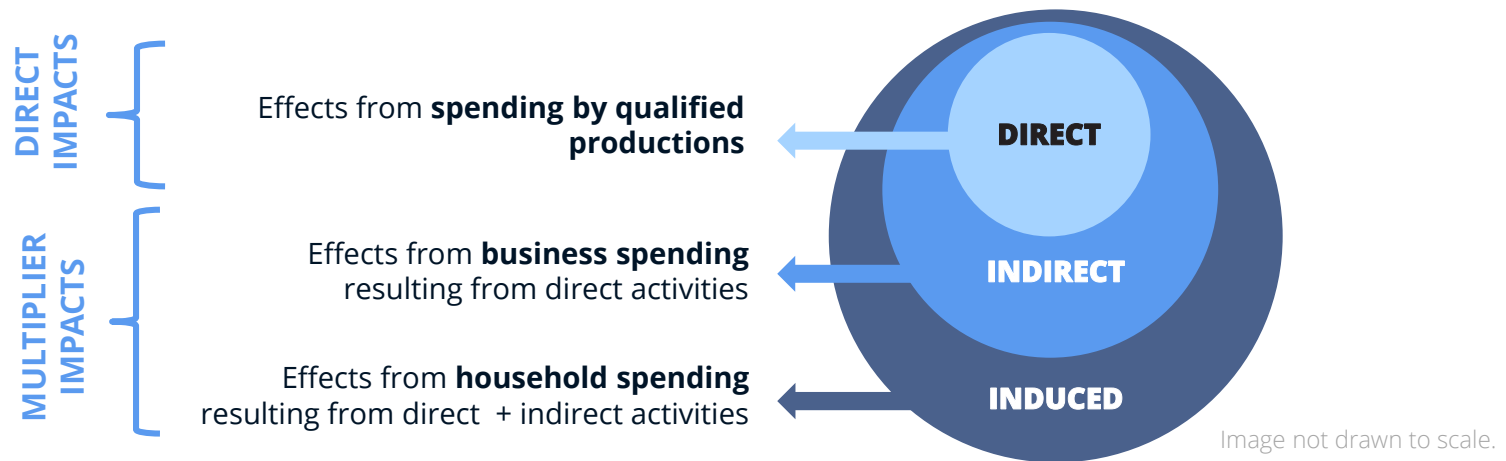
3. *Beloved Brooklyn deli stays in business, thanks to gift from production company*, ABC7, 2018.

Film & Television Production Industry Supply Chain and Support Services

Architecture & Construction <ul style="list-style-type: none"> • Set design • Lumber • Steel • Paint • Engineering 	Professional Services <ul style="list-style-type: none"> • Advertising & marketing • Financial services • Insurance carriers 	Tech <ul style="list-style-type: none"> • Cameras, lighting • Special effects • Computer graphics & animation
Retail <ul style="list-style-type: none"> • Prop rental • Equipment rental • Furniture 	Hospitality & Tourism <ul style="list-style-type: none"> • Hotels • Travel 	Food Services <ul style="list-style-type: none"> • Catering • Restaurants
Fashion <ul style="list-style-type: none"> • Costume design & production • Styling services 	Theater and Literary Trades <ul style="list-style-type: none"> • Acting talent • Writing 	Transportation <ul style="list-style-type: none"> • Truck transport • Fuel • Trailers

This analysis captures the economic and fiscal benefits of in-state spending activity **directly attributable to the Film Production Credit** in 2017.

Film Production Credit Impacts



When a film or TV production is attracted to New York State by the Credit, in-state purchases made by the production stimulate additional spending on inputs among supplier businesses, setting off a virtuous cycle of spending and job creation throughout the local economy.

The benefits of increased economic activity supported through the tax credit can be described in terms of:

- **Employment**, or the number of total workers (full- and part-time).
- **Personal income**, including employee wages and benefits, proprietor income, and other property income.
- **Economic output** (spending), or the total value of production across all industries in the economy.

The total economic impacts generated by initial changes in sector-specific spending or employment can be disaggregated into direct, indirect, and induced effects, whereby:

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

In 2017, \$3.9 billion in direct spending by qualified productions generated **significant economic benefits for New Yorkers** across all sectors of the local economy.

Productions applying for the Film Production Credit spent a total of **\$3,917,300,000** in New York State in 2017. Below-the-line expenditures, or total production costs exclusive of actors, directors, producers, writers and story acquisition rights, made up nearly three-quarters (73 percent) of total in-state spending in 2017. Of this total, approximately **\$1 out of every \$10 was spent outside of New York City**.

Total in-state spending by qualified productions in New York State supported **48,300 jobs across the economy** in 2017. Workers in these jobs earned, on average, approximately **\$90,000 per year**. Each job generated through the tax credit

was associated with nearly **\$140,000 in spending per capita** within the local economy, for a total combined impact of **\$6.7 billion in new economic activity**. New economic activity facilitated through the tax credit drove **\$780 million in incremental tax revenues** at the local- and state-levels.

In addition to the permanent impacts of direct spending by qualified productions, the approximately **\$550 million** in recent studio capital investments generated a one-time impact of **4,010 construction job-years** and **\$636 million** in total economic activity across New York State.

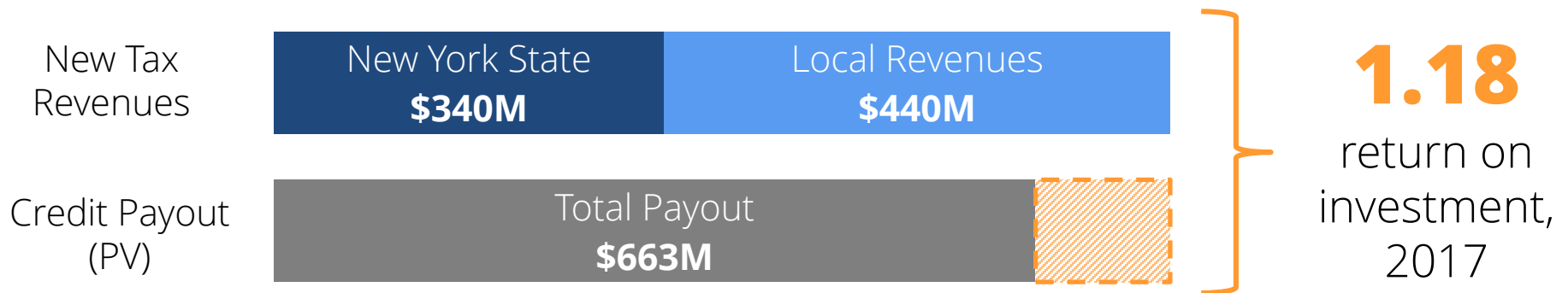
Annual Economic & Fiscal Impact of \$3.9B in Direct Spending by Qualified Productions in New York State, 2017

	<i>Jobs</i>	<i>Personal Income</i>	<i>Output</i>	<i>Local + State Taxes</i>
Direct	32,150	\$2.6 B	\$3.9 B	\$475 M
Indirect/ Induced	16,150	\$1.7 B	\$2.75B	\$305 M
Total	48,300	\$4.3 B	\$6.7 B	\$780 M

Source: HR&A analysis of IMPLAN; ESD; HR&A interviews with major studio operators in New York State; NYS Dept of Taxation and Finance; U.S. Census Bureau State & Local Government Finances; U.S. Bureau of Economic Analysis (BEA). All amounts are in 2017 dollars. Income consists of employee compensation, proprietor's income, and other property income. One-time impacts exclude land acquisition costs and internal/predevelopment costs such as developer's fee, capitalized interest, and operating deficit reserve fund.

The Credit offers a strong **return on public investment**, generating **\$780 million in state and local tax revenues in 2017**.

State & Local Tax Revenues versus Future Credit Payouts, 2017



Source: HR&A analysis of IMPLAN; ESD; NYS Dept of Taxation and Finance; U.S. Census Bureau State & Local Government Finances; BEA. All amounts cited in 2017 dollars. A discount rate of 1.58%, equal to the Series 2018A tax exempt bond yield in 2021, was applied to future Credit payouts to derive the present value cost of the program in 2017.

In 2017, New York State issued **168 tax credit certificates** worth **\$688 million** to qualified productions. Though the State realizes the economic and fiscal benefits of production activity spurred through the Credit in real-time, the Credit is dispersed over a number of years—often between one and five years depending on the size of the credit and whether the refund is subject to an audit—providing an added cash-flow benefit to the State. Credit certificates issued in 2017 may not be fully paid out until 2021. Applying a 1.58 percent discount rate to projected future Credit payouts results in a present value of **\$663 million**.

When compared against net new tax revenues generated by Credit-induced film activity (\$780 million), the combined **return on investment (ROI) to the State and localities across New York was equal to 1.18** in 2017. ROI is an effective

measure of the overall fiscal benefit of the Credit; an estimated ROI of 1.18 suggests that **for every \$1.00 of Credit disbursed, New York State and local municipalities receive a combined \$1.18 in total tax revenue**.

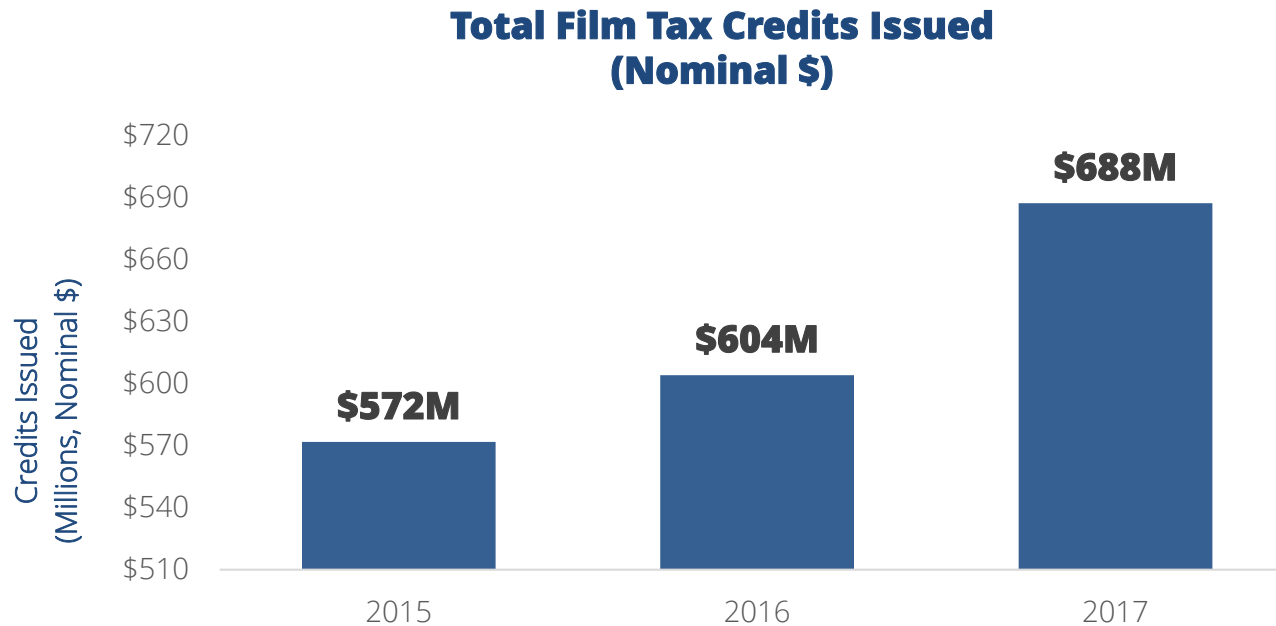
This is a conservative estimate of the true amount of fiscal revenues generated through the Credit, as it does not account for non-qualified production activity nor incremental revenues generated through film-induced tourism and capital investments. While non-qualifying productions such as commercials, music videos, and documentaries do not make direct use of the Credit, these types of productions are able to take advantage of the clustering effect of film and TV production incentivized through the Credit, including a robust infrastructure network, readily-available equipment, and a deep pool of industry labor.

FILM PRODUCTION TAX CREDIT

Future of the Industry



Qualified production spending is at all-time highs, witnessing a five-fold increase between 2004 and 2017. **At the current rate of growth, existing funding levels could soon prove insufficient.**



Qualified production spending has undergone significant and consistent expansion.

Total spending by qualified productions in New York State increased from approximately \$785 million in 2004 to \$3.9 billion in 2017 after adjusting for inflation.

The success of the Film Tax Credit program may soon result in exceeding the annual allocation amount.

At the current pace of spending, some stakeholders question whether the current funding allocation of \$420 million per year may soon be exceeded by the volume of credits being approved. Even with multi-year payouts and the ability to roll over any unused allocations to the following year, the funding pool could run out by 2022, the last year in which the Credit is currently funded.

Source: ESD.

The **introduction and expansion of film tax credit programs in other states** have contributed to similar patterns of growth elsewhere.

While New York's gains have been significant, it faces competition from similar programs in other states.

Similar to growth experienced in New York State, other states have witnessed subsequent growth following the introduction and expansion of similar film tax credit programs.

California

Credit: 20-25%
Annual Cap: \$330M
Sunset: 2025



California first introduced a credit program in 2009, stemming industry loss and growing employment by an average annual rate of 0.8 percent until the expansion of the credit in 2015, when average annual growth grew to 1.4 percent. In June 2018, California extended its \$330M tax credit until 2025. Although California's tax credit is less rewarding than that of other locales, reflecting its historically-dominant market position, the extension was prompted by the realities of losing talent and industry in the face of expanding competition and sluggish continued local growth.

Louisiana

Credit: 25-40%
Annual Cap: \$180M
Sunset: 2025



Following Louisiana's introduction of a credit program in 2002, the state began to attract a regular flow of location shoots, growing employment by an average annual rate of 13.4 percent between 2003 to 2014, or from 1,360 to 5,400 jobs. However, the introduction of a \$180M annual cap in 2015 halted this growth in the context of Georgia's competitive regional offerings and resulted in a 42 percent decline in local Film and TV Production employment between 2015 to 2017, demonstrating the industry's keen sensitivity to shifts in the competitive tax credit landscape.

Georgia

Credit: 20-30%
Annual Cap: N/A
Sunset: 2019



Since the introduction of an initial 8 percent credit in 2005, Georgia's film and TV industry has steadily expanded. The program was significantly expanded in 2008, providing a transferable 20 to 30 percent credit for production spending. Following this expansion, industry employment experienced average annual growth of 24.5 percent between 2008 to 2017, growing from 2,200 to 15,600 jobs. The stability provided by this credit has also supported the development of massive new film campuses totaling hundreds of millions of dollars in investment, supporting the attraction of major Film and Television Productions.

Connecticut

Credit: 10-30 %
Annual Cap: N/A
Sunset: N/A



Connecticut has experienced substantial employment growth in its Film and TV Production industry since the introduction of a film tax credit program in 2006 and subsequent modification in 2010 tying the credit amount to total production expenses. Since 2006, Connecticut's local industry has grown by an average annual rate of 18%, increasing the number of jobs from 540 to 3,300. The program's lack of an annual cap has also allowed the burgeoning industry to remain relatively resilient in the face of fluctuating demand.

New York State's **inherent strengths make it uniquely-suited to embrace innovation, accessibility, and adaptability** in the face of shifts in the global competitive landscape.

New York's unique strengths are advantageous to major studio operators and independent innovators alike, fostering an industry ecosystem that is more agile, innovative, and accessible than in other markets.



Talent networks. New York's status as a global city enhances its attractiveness as a place to live and work, helping it to attract and retain a broad base of talent. While other states offer credit programs comparable to that of New York, many lack a permanent base of skilled workers that help to foster continued industry growth.



Access to decision-makers and funders. While major studio operators and entertainment companies were once clustered in California, major media companies have expanded or established a presence in New York, increasing the ease with which local producers can leverage access to global capital and distribution networks. This includes traditional operators such as Disney / 21st Century Fox and HBO, as well as new digital distribution arms such as Netflix and YouTube.



Proximity to adjacent industries. The presence of adjacent industries required to support Film and Television Production benefits large and small producers alike. As new funding and distribution models emerge, including more accessible streaming and funding platforms such

as Vimeo and Kickstarter, budding creatives flourish from access to local talent in the theater, fashion, writing, music, design, construction, and industries that may not have a presence in other Credit markets such as Connecticut or Louisiana.



Technical innovation. Proximity to developers of new technologies is conducive to continued innovation and agility. As the home to headquarters and start-ups for emerging technologies such as digital distribution platforms and AR/VR technologies, New York is well-positioned to capitalize on future advancements and evolutions in the Film and TV Production sector. In recognition of this importance, the City of New York recently invested \$6 million in a new VR/AR facility to foster growth and expansion that will position New York as a leader in the years to come.



Supportive local jurisdictions. Supportive local government has complimented the impact of the Credit by easing other limitations on production. For example, New York City has streamlined the film location permitting process, and provides technical assistance to productions through the Mayor's Office of Media and Entertainment.



TECHNICAL APPENDIX

HR&A Advisors specializes in analyzing the economic and fiscal impacts of industries, policy interventions, and development projects.

HR&A Advisors, Inc. is an industry-leading economic development and public policy consulting firm with offices in New York, Dallas, Los Angeles, Raleigh, and Washington, D.C. For over forty years, HR&A has helped hundreds of cities, tech companies, and developers grow innovative places and ecosystems both in the U.S. and around the world.

Experience

- Served as economic development advisor to over 200 cities including London, New York, and Los Angeles.
- Analyzed economic impact of \$50+ billion in major policies and projects in past 5 years alone.
- Economic impact reports include Airbnb, NBC Universal, the NYC Tech Ecosystem, Research Triangle Park, Times Square, and the High Line.

Clients



HR&A was commissioned to perform this study on behalf of a consortium of local production trades and guilds, including IATSE Local 52, SAG-AFTRA, Teamsters Local 817, DGA, and WGAE.



IATSE Local 52 represents below-the-line skilled craftspeople and technicians.



SAG-AFTRA

SAG-AFTRA represents actors, announcers, broadcast journalists, dancers, DJs, news writers, news editors, program hosts, puppeteers, recording artists, singers, stunt performers, voiceover artists and other media professionals.



Teamsters Local 817 represents workers in transportation, casting, and locations.



Directors Guild of America is a labor organization which protects the economic and creative rights of directors and their teams.



Writers Guild of America, East

represents people who write drama, comedy, and news for television, film, digital media, and radio.

HR&A relied on data provided by Economic Modeling Specialists International (EMSI) to identify industry growth trends within the Film and Television Production sector.

A CareerBuilder company, EMSI is a leading national provider of employment data and economic impact analysis. HR&A utilized EMSI's Analyst tool to estimate the size of the New York State Film and Television Production sector and its associated wages, educational requirements, and demographics.

EMSI gathers and integrates labor market data from a wide array of sources, including the U.S. Bureau of Labor Statistics' (BLS) Quarterly Census of Employment and Wages (QCEW) and Occupational Employment Statistics (OES), the U.S. Bureau of Economic Analysis, O*NET, the U.S. Census Bureau's American Community Survey (ACS) and County Business Patterns (CBP), and state departments of labor.

HR&A relied on EMSI data pertaining to all jobs covered by federal and state unemployment insurance, consistent with the QCEW employment counts that are available publicly through the U.S. BLS.

EMSI's proprietary estimation process enables it to accurately report detailed data for every county in the United States. EMSI reports industry-level data to the six-digit NAICS code and occupational data to the five-digit SOC code. EMSI provides a cross-walk between industry and employment data (staffing patterns and reverse staffing patterns) and also reports the most common educational or training requirements for each of the 800+ SOC codes based upon data from the U.S. Bureau of Labor Statistics.

Source: EMSI. Definitions per the U.S. Census Bureau, North American Industry Classification System.

This analysis utilizes the below industry classifications to measure direct employment trends within the 'Film and Television Production' sector, consistent with prior analyses of the New York State Film Tax Credit:

- **Motion Picture and Video Production** (NAICS 51211), which includes establishments engaged in producing or producing and distributing motion pictures, videos, TV programs, or TV commercials.
- **Motion Picture and Video Distribution** (NAICS 51212), which comprises establishments engaged in acquiring distribution rights and distributing film and video productions to motion picture theaters, TV network and stations, and exhibitors.
- **Postproduction Services and Other Motion Picture and Video Industries** (NAICS 51219), which includes establishments primarily engaged in providing postproduction services such as editing, titling, subtitling, credits, closed captioning, and computer-generated graphics, animation & special effects, as well as development and processing of motion picture film.

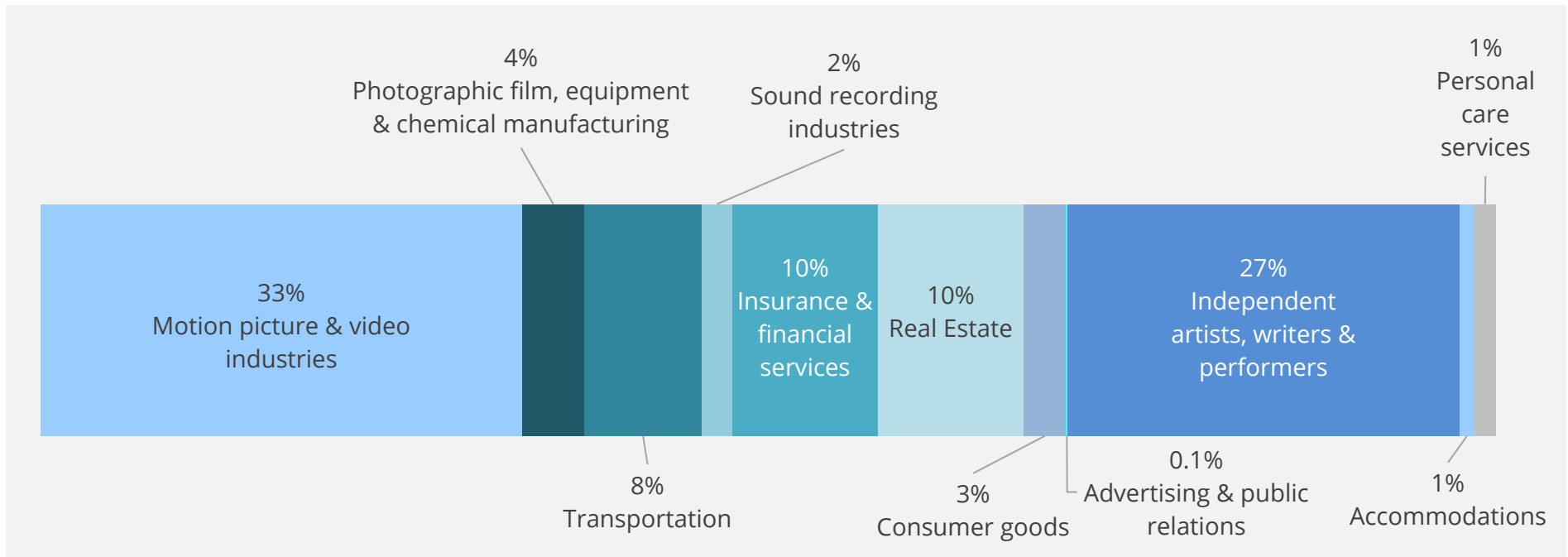
It is important to note that many jobs contributing to the sector (e.g. Independent Artists, Writers, and Performers) are not captured by the above definition, and that the resultant job estimates are likely to substantially understate the true scale and magnitude of the sector. As a result, this analysis places equal emphasis on trends in total production spending and the experiences of local union leaders and industry stakeholders to demonstrate the growth of Film and Television Production activity in New York State since the introduction of the Film Tax Credit program in 2004.

The Empire State Development Corporation provided information on total in-state spending among productions that applied to the tax credit program between 2015 and 2017.

Productions applying for the tax credit spent a total of **\$3,917,300,000** in New York State in 2017, according to data provided by the Empire State Development Corporation. Below-the-line expenditures, or total production costs exclusive of actors, directors, producers, writers and story acquisition rights, made up nearly three-quarters (73 percent) of total in-state spending in 2017. Of this total, approximately **\$1 out of every \$10 was spent outside of New York City**.

Fully two-thirds of total in-state spending – more than **\$2.6 billion** – went to industries outside of the direct motion picture and video sector in 2017. Among the primary recipients of direct spending by qualified productions in 2017 apart from the Film & TV Production sector were local manufacturers, transportation services, studios and stages, above-the-line talent, and accommodations and food services.

Distribution of Spending by Qualified Productions in New York State



Source: ESD. Spending breakout by category not available for 2017 productions, as ESD no longer tabulates application information to arrive at aggregate figures by category. The shares above reflect the spending breakdown from HR&A's 2012 analysis of the New York State film tax credit program.

HR&A utilized the IMPLAN input-output model to estimate the economic impacts of the Film Production Tax Credit in New York State.

IMPLAN, created by the IMPLAN Group, LLC (formerly MIG or the Minnesota IMPLAN Group, Inc.), is an industry standard input-output model used to conduct economic impact analyses by leading public and private sector organizations across the United States. It also has been used to monitor job creation for a range of federal government initiatives, including the economic impacts of the American Recovery and Reinvestment Act of 2009 on state economies.

For economic spending, IMPLAN traces the pattern of commodity purchases and sales between industries that are associated with each dollar's worth of a product or service sold to a customer, analyzing interactions among 536 industries, with assumptions about spending that takes place outside of the study area. The model generates estimates of direct economic impacts as well as multiplier activities based on a series of inputs.

In addition to overall economic spending, the IMPLAN input-output model also produces estimates of the number of jobs supported and labor income. Labor income generated by the IMPLAN input-output model is based on a nationally recognized econometric model, customized for conditions in each particular study area. It includes wage and salary income plus benefits and employer paid taxes, in addition to income earned by independent proprietors. The estimates of jobs and labor income are based on industry-specific data collected by the Bureau of Economic Analysis and Bureau of Labor statistics.

HR&A relied on the 2016 IMPLAN multipliers for New York State and its composite counties for the purposes of this analysis.

When a film or TV production is attracted to New York State by the Credit, in-state purchases made by the production stimulate additional spending on inputs among supplier businesses, setting off a virtuous cycle of spending and job creation throughout the local economy.

The economic benefits of the Film Tax Credit include the direct and multiplier impacts as defined below:

Film Production Credit Impacts

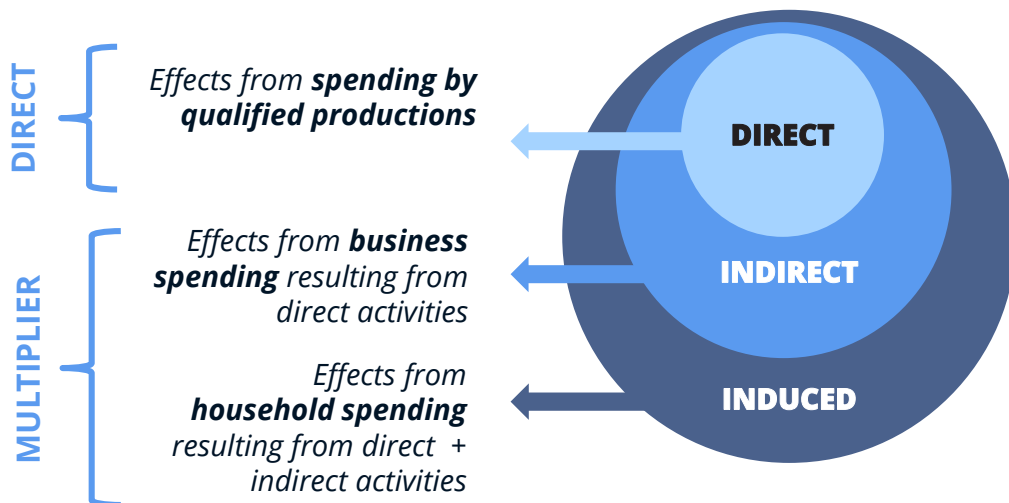


Image not drawn to scale.

Qualified spending totals were broken out between New York City versus non-New York City, allowing us to distinguish between Credit-supported impacts within NYC versus elsewhere in New York State.

HR&A received qualified spending, non-qualified spending, and total spending amounts for qualified productions from the State, as well as the breakout between qualified spending in New York City versus outside of New York City. This analysis assumes an equivalent share of NYC versus non-NYC spending for non-qualified expenditures.

The resultant amounts of direct, indirect, and induced employment, economic spending, and personal income attributable to qualified productions in New York State and New York City in 2017 are included below. Though capturing 10 percent of total direct spending, areas outside of New York City saw 16 percent of all economic activity and 21 percent of total jobs supported by the tax credit in 2017.

Economic Impacts of the Film Production Credit, 2017

	Direct Impact	Indirect & Induced Impact	Total Impact
New York City			
Employment	27,500	10,800	38,300
Income	\$2,398,500,000	\$1,340,100,000	\$3,738,600,000
Spending	\$3,531,300,000	\$2,034,100,000	\$5,565,400,000
Outside of New York City			
Employment	4,650	5,350	10,000
Income	\$173,100,000	\$345,400,000	\$518,500,000
Spending	\$386,000,000	\$712,400,000	\$1,098,400,000
Total New York State			
Employment	32,150	16,150	48,300
Income	\$2,571,600,000	\$1,685,500,000	\$4,257,100,000
Spending	\$3,917,300,000	\$2,746,500,000	\$6,663,800,000

Source: HR&A analysis of IMPLAN; ESD.

All amounts are in 2017 dollars. Income consists of employee compensation, proprietor's income, and other property income.

HR&A's methodology for projecting fiscal impacts is based on incremental income estimated by the input-output model as well as existing ratios between personal income and tax revenues.

New economic activity facilitated through the Credit drives incremental tax revenues at the local- and state-levels. HR&A estimated the fiscal impact of the film production tax credit in New York State and local municipalities across the State, reflective of personal income taxes, sales taxes, business taxes, and real property taxes where applicable.

- Personal income taxes were estimated by applying the effective total tax rates for New York City and New York State to respective levels of employee compensation, proprietor's income, and other property income generated by the tax credit. Effective tax rates and share of taxable income were calculated using historical tax collections data from the NYS Department of Taxation and Finance.
- All other taxes, including business, sales, and property taxes, were estimated based on the ratio between total personal income as reported by the Bureau of Economic Analysis (BEA) and the relevant jurisdictions' historical tax collections by category. For New York State, HR&A relied on the U.S. Census Bureau's 2017 Annual Survey of State Tax Collections, while New York City ratios were based on tax collections cited by the Office of Management and Budget.
- A singular ratio of total non-New York City local tax revenues to non-New York City personal income was sourced from the U.S. Census Bureau's 2016 Annual Surveys of State and Local Government Finances and the BEA, and was used to project local tax revenues generated through the Credit across all other local municipalities.

The combined total local and state tax revenues from above was compared against the present value of future payouts of the tax credit to determine the ROI.

Ratios to Personal Income, 2017

Category	NY State	NYC	Non-NYC
Individual Income Tax	5.06	3.05	-
Real Property Tax	0.00	4.19	-
Corporate Income Tax	0.33	0.66	-
Sales Tax	1.17	1.26	-
Selective Sales Tax	0.93	0.00	-
Other Taxes	0.47	1.71	-
Total	7.95	10.88	6.79

Estimated Payout Schedule for 2017 Credit Certificates in New York State

Year	Amount
2018 Payout	\$147,000,000
2019 Payout	\$243,000,000
2020 Payout	\$213,000,000
2021 Payout	\$85,000,000
Total Cash Payout	\$688,000,000
Present Value of Payout	\$663,000,000

Source: ESD; NYS Department of Taxation and Finance; U.S. Census Bureau State & Local Government Finances; BEA. A discount rate of 1.58%, equal to the Series 2018A tax exempt bond yield in 2021, was applied to future Credit payouts to derive the present value.

GENERAL AND LIMITING CONDITIONS

Any person who relies on or otherwise uses this Economic and Fiscal Impact Study (the “Study”) is required to have first read, understood and accepted the following disclosures, limitations and disclaimers, and will, by reason of such reliance or other use, be deemed to have read, understood and accepted the same.

1. HR&A Advisors, Inc. (“HR&A”) has been engaged and compensated by IATSE Local 52, SAG-AFTRA, Teamsters Local 817, DGA, and WGAE to prepare this Study. In preparing this Study, HR&A has used its independent professional judgment and skills in good faith, subject to the limitations, disclosures and disclaimers herein.
2. This Study is based on estimates, assumptions and other information developed by HR&A. Every reasonable effort has been made to ensure that the data contained in this Study are accurate as of the date of this Study; however, factors exist that are outside the control of HR&A and that may affect the estimates and/or impacts noted herein. HR&A neither guarantees any results nor takes responsibility for their actual achievement or continuing applicability, as actual outcomes will depend on future events and circumstances beyond HR&A’s control.
3. HR&A relied on information, data, and forecasts provided by the Empire State Development Corporation (ESD) under the Freedom of Information Law, IMPLAN, EMSI, U.S. Bureau of Labor Statistics, U.S. Census Bureau, U.S. Bureau of Economic Analysis, State of New York, and City of New York. HR&A reviewed the information provided using its independent professional judgment and skills in good faith. HR&A assumes no liability resulting from errors, omissions or any other inaccuracies with respect to the information provided by the respective organizations referenced above.
4. In addition to relying on data, information, and forecasts as referred to above, HR&A has included in this Study estimates and assumptions made by HR&A that HR&A believes are appropriate, but HR&A makes no representation that there will be no variances between actual outcomes and such estimates and assumptions.
5. No summary or abstract of this Study, and no excerpts from this Study, may be made for any purpose without HR&A’s prior written consent.
6. No opinion is intended to be expressed and no responsibility is assumed for any matters that are legal in nature or require legal expertise or specialized knowledge beyond that of an economic and fiscal impact consultant.
7. HR&A is not acting as a Registered Investment Advisor or an advisor to potential investors. Prior to taking any action related to the information in this Study, any investor should consult with its own financial, legal, tax, accounting, and other advisors to the extent it deems appropriate.
8. Many of the figures presented in this Study have been rounded. HR&A disclaims any and all liability relating to rounding errors.
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10. If the Study is referred to or included in any offering material or prospectus, the Study shall be deemed to have been included for informational purposes only and its use shall be subject to these General and Limiting Conditions. HR&A, its directors, officers and employees have no liability to recipients of any such offering material or prospectus. HR&A disclaims any and all liability to any party.
11. This Study is qualified in its entirety by, and should be considered in light of these General and Limiting Conditions. By use of this Study each party that uses this Study agrees to be bound by all of the General and Limiting Conditions stated herein.

Economic & Fiscal Impacts of the New York State Television & Motion Picture Production Incentive Program

FINAL REPORT

December 2018

