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A HOLLYWOOD RESET

Restoring Stability in the California Entertainment Industry

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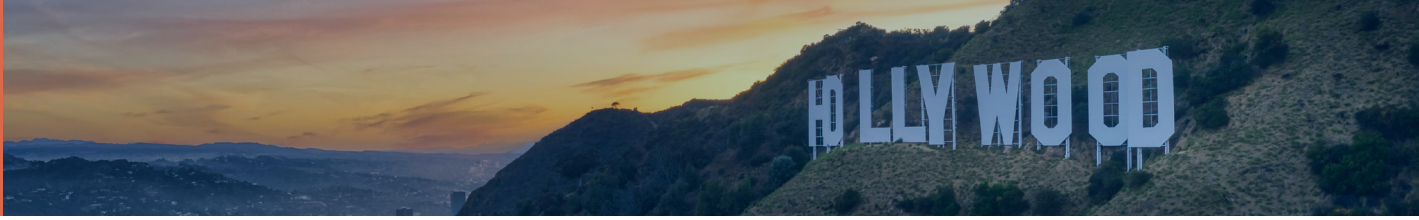
In addition, we are grateful for the support of the Office of Mayor Karen Bass and the mayor's Film and Television Retention Taskforce.

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Introduction

For over a century, California has held a unique position as the global center of filmed entertainment. During this time, Hollywood, as both a concept and a location, has become synonymous with movies, television, and, more recently, streaming and online content. The entertainment industry has not only contributed to cultural and physical exports for the state of California but has also had a tremendous impact on tourism and a role in global culture that has been translated to other fields, such as design, technology, and even innovative manufacturing. While numerous industries, such as shipping, software, aerospace, advanced manufacturing, and agriculture, play a larger role in both employment and overall output, it would be difficult to overstate the broader significance of the entertainment industry in the state's identity and exports.

Filmed entertainment itself has weathered numerous highs and lows in California over the past century or more but has not faced as significant and wide-ranging a threat as has impacted Hollywood production in the wake of reaching “peak television” in 2021. Although previous disruptions in Hollywood have involved technological disruption such as the rise of television in the 1950s, runaway production due to a strong dollar and rising costs in the late 1990s, and the increase of out-of-state and country film incentives a decade later, never have all three factors come together to impact California's entertainment industry so thoroughly at the same time.

The rise of streaming online content was accelerated dramatically by the 2020–23 COVID-19 pandemic, but it has not succeeded in capturing the stable revenues of the various forms of media it is replacing, such as DVDs, cable, network television, and theatrical movies. At the same time, filmed entertainment is facing a new wave of independent online content not only from YouTube but also from TikTok, Twitch, and numerous other competing platforms. Furthermore, the rapid rise in real estate prices and the cost of doing business in California were significantly exacerbated by the pandemic and its aftermath. While these challenges were masked by the rush to revive productions in the aftermath of the pandemic lockdown, companies used different COVID rules and overseas content to help fill the gaps in many production schedules, a process that was only intensified by both the strike in 2023 and the threat of local labor unrest in 2024. Simultaneously, numerous out-of-state locations—including New York, New Mexico, Australia, Canada, and the United Kingdom—aggressively increased film incentives.

The combination of all these factors demonstrates that prior efforts to halt runaway production and encourage local filming in California are no longer sufficient, not only in terms of the absolute level of tax credits involved but also in terms of the number of credits and how and where they are aimed. California, unfortunately, is facing both a very different world and a very different entertainment industry from what it confronted over a decade ago. While entertainment employment has risen in numerous other states and countries, it has fallen faster in California than at any time in the past, with a very real and measurable effect on local businesses and the ability and willingness of workers to stay both in the state and in the entertainment industry. Policymakers and business leaders alike need to understand that the decline of filmed entertainment in California is not only real but at significant risk of being irreversible as workers and companies flee both the industry and the state.

The cost and complexity of filming in California amid more aggressive incentives, a weaker dollar, and a higher cost of living mean that an incentives program that was effective a decade ago is no longer. Without a major overhaul of its film incentives program, California will be unable to recover from the recent entertainment industry contraction and will continue to lose productions and jobs.

This report will show:

- The US entertainment industry is declining after a short production frenzy.
- California's entertainment industry is shrinking.
- Hollywood is losing competitiveness because it is too expensive and too complex.
- California's small businesses—which underlie the state's competitive advantage for filming—are severely and potentially irreversibly harmed. Other places are benefiting from runaway productions.

The report will recommend:

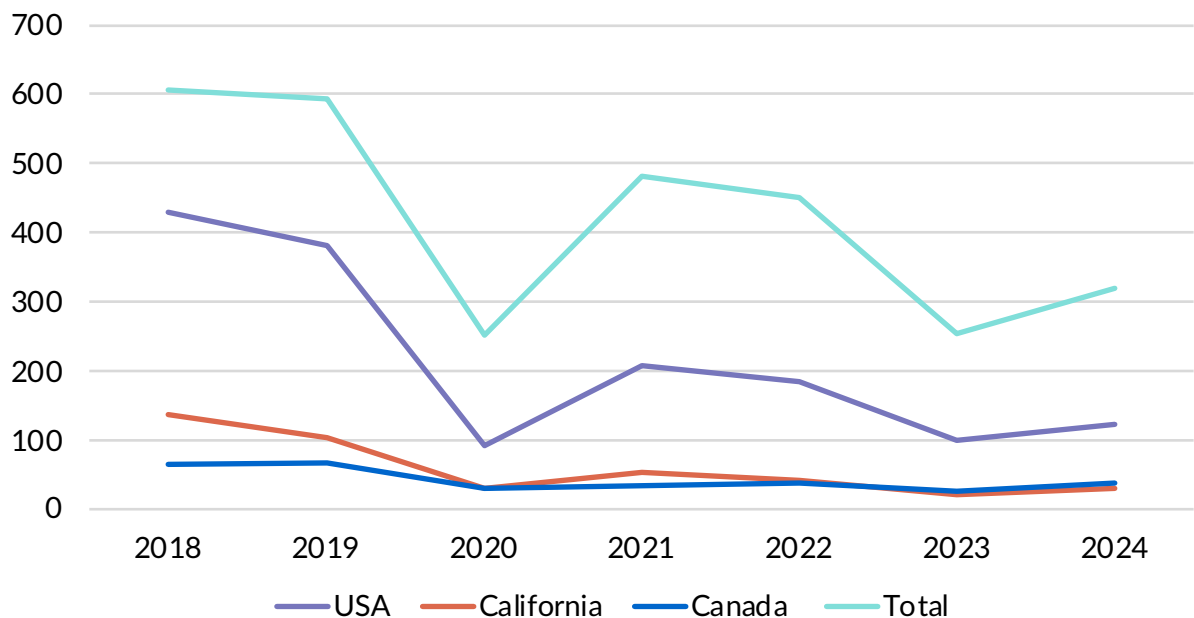
- California tax credit budget should increase to \$750 million annually, expected to create \$4.99 billion in additional total output for the California economy.
- California tax credit rate should increase to at least 30 percent.
- Shorter television shows and unscripted projects should be eligible for the film credit.
- California's film incentives program should take steps to become more user-friendly, including allowing for applications on a rolling basis and shifting the responsibility of job viability calculation back to the California Film Commission.
- FilmLA should receive funds from local governments to subsidize its film-permitting revenue.

California's Entertainment Industry Is Declining

Structurally, the US entertainment industry is slowing, as evident in a decrease in total productions per year. Hollywood is decidedly declining at an even faster clip. By this, we mean that even as the entertainment industry and filmed entertainment production decline from a pre-pandemic peak in 2019, California's share of US entertainment output and employment is decreasing. This is levying concentrated effects on the entertainment industry through a reduction in profits to studios, a dip in entertainment employment, and a decline in business for entertainment-specific small businesses. Impacts have reverberated beyond the "Thirty Mile Zone" (in the entertainment industry, the Thirty Mile Zone [TMZ] refers to the geographical area within a 30-mile radius of a specific point in Los Angeles: the intersection of West Beverly Boulevard and North La Cienega Boulevard).

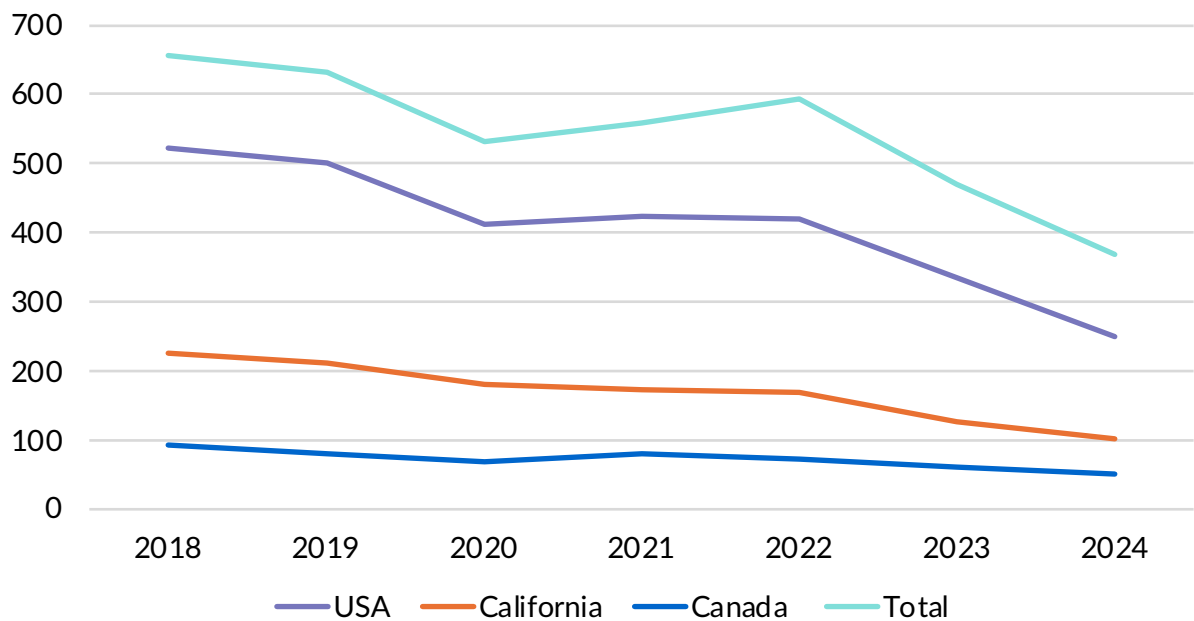
Figure 1: Decline in Total Yearly Productions Filmed in California

1A: Feature Film Production Location by Wrap Year



Source: StudioSystem by Gracenote, a Nielsen Company (2025)

1B: TV/Streaming Production Location by Year Aired



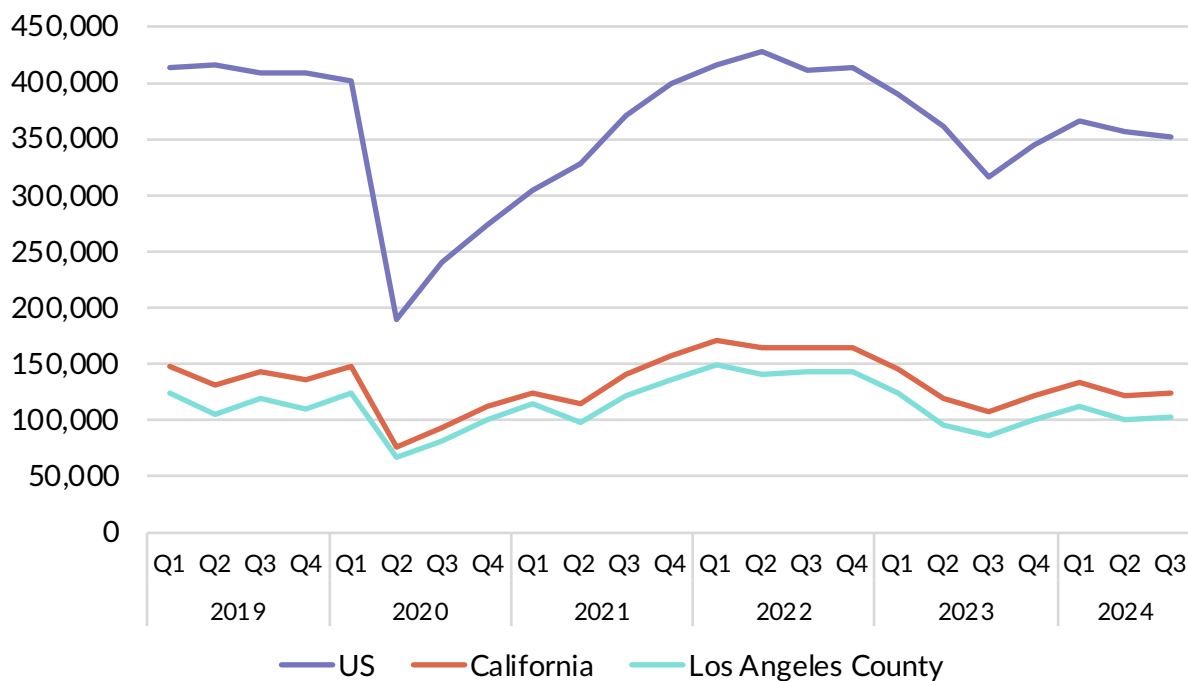
Source: StudioSystem (2025)

California's declining share of the entertainment market cost the state \$4.1 billion in total output and 17,234 lost jobs.¹ This impact is primarily concentrated in actual filmed entertainment, but the impact of declines cannot be measured simply in terms of the number of films, television programs, streaming, and other forms of filmed production taking place in the state. The impact has spread to numerous small businesses located throughout the state that help to make up the essential infrastructure that has developed over decades of filmed entertainment.

In addition to the local economic costs of shifting production, the entertainment industry and the art produced will suffer without a central hub of production. The creative process and scouting of talent benefit from in-person interaction, and Hollywood has been able to connect creative minds and create artwork for over a century. The numerous businesses that serve to feed this critical mass of talent, facilities, and resources include companies such as prop houses, catering companies, specialized dry cleaners, camera rentals, sound recording studios, and others. The combination of rising costs of doing business in California and the 2020-2023 COVID-19 pandemic brought considerable financial pressures, which have been significantly exacerbated since the 2023 downturn.

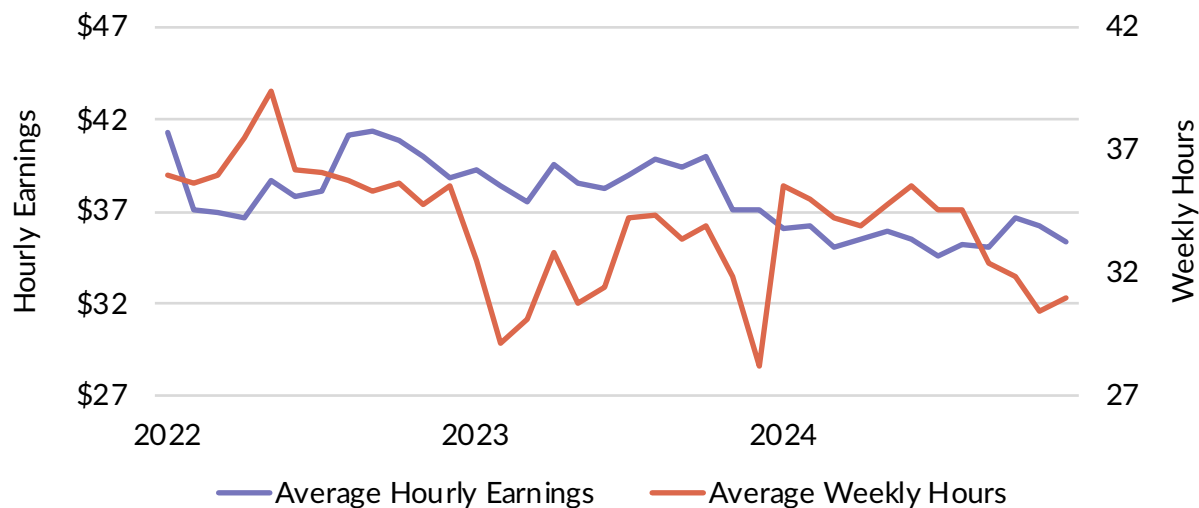
In Hollywood, fewer workers are working fewer hours for less money. From Q2 2019 to Q2 2024, entertainment jobs in California decreased by 15 percent.² Unsurprisingly, average weekly hours worked by entertainment workers decreased in 2023, at least partly due to the Hollywood strikes. More notably, weekly hours and employment have not meaningfully recovered, as shown in Figure 2 and Figure 3.

Figure 2: Motion Picture Employment in the US, California, and Los Angeles County



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, NAICS code 5121 (Motion Picture and Video Industries) (2025)

Figure 3: Average Weekly Hours and Earnings for Entertainment Workers in California, 2022–2024

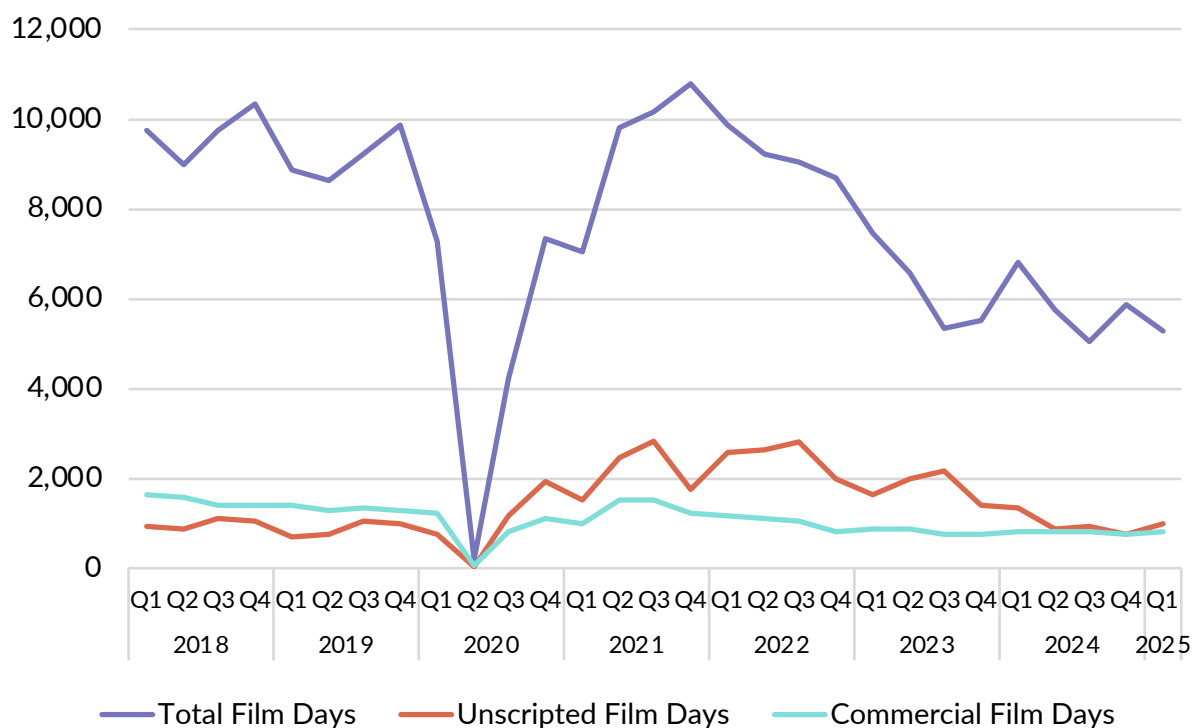


Source: California Employment Development Department (2025)

Although the overall level of entertainment employment has cycled seasonally since 2019, the overall trend line in California is clear. Average weekly hours for California entertainment workers have decreased by 5.6 percent since 2018 but decreased by 11.9 percent between 2022 and 2023.³ Entertainment jobs in California declined 11.7 percent between 2019 and 2023 but decreased 24.8 percent between 2022 and 2023.⁴ Although weekly hours recovered early in 2024, they moved into a higher seasonal decline than seen in 2022, and wages have also remained lower than in 2022. Given that these numbers apply only to employed workers, not those who have been sidelined or left the industry, this strongly suggests continued reduced hours and opportunities for entertainment workers within the state.

Hollywood is also producing fewer projects locally. According to preliminary findings, average sound stage occupancy in Los Angeles typically stays above 90 percent; this dropped to 69 percent in 2023 and further declined to 63 percent in 2024.⁵ Similarly, on-location shoot days in Los Angeles declined by 53 percent between Q4 2019 and Q4 2024, declining 5.6 percent in the last year alone (see Figure 4).⁶

Figure 4: Los Angeles On-Location Shoot Days



Source: FilmLA (2025)⁷

Consequences for Small Businesses

One of the most significant impacts throughout the state has been the profound and clear effect on small businesses, both within and adjacent to filmed production. An area where impact data on jobs are fundamentally limited is in capturing businesses around the state, and particularly in Los Angeles County, that have experienced significant impact from the decline in filmed production. One of the greatest comparative strengths that Los Angeles and California have maintained is the strength of substantial resources—including equipment, costumes, and skilled professionals who are used to producing goods and services in rapid fashion—and reduced cost for local productions. Because the cost savings for using these existing services are not detailed or broken out in film incentive statements, documentation of their disappearance may take time, a resource that the businesses themselves do not have.

Between 2021 and 2023, at least 379 California entertainment establishments closed, decreasing the total from 11,511 to 11,132.⁸ Although the decline is not dramatic when projected across the state, the losses were disproportionately concentrated in businesses closely connected to entertainment production. Among the entertainment businesses affected were prominent prop and costume shops, including Faux Library, Ursula's Costumes, and Valentino's Costume Shop.⁹

In addition, numerous specialized businesses, such as prop shops, caterers, and related businesses, have either closed or retreated from Hollywood work. As institutions shutter their doors and sell off their specialized inventory, that infrastructure is gone. Infrastructure losses will continue as jobs and productions continue a downward trend in California and will be increasingly difficult to bring back should the industry recover.

In addition to business closures, many business owners who were finally recovering from losses due to COVID are now experiencing a decline. A sound stage owner told the *New York Times* that in 2022, “business was finally back to normal. We were finally hitting our pre-COVID numbers.” Now, Hollywood's slowdown is decreasing its revenue by 65 percent.¹⁰ A dry cleaner told *The Guardian* that business had decreased by 20 percent as talk-show guests appear remotely, the need for security guards and other uniformed employees decreases as studio buildings empty, and executives take meetings virtually, reducing the need for dry-cleaned suits and uniforms.¹¹

As virtual technologies remove some of the pressure to concentrate production decision-making in California, the local businesses that cannot be easily moved, such as those tied to physical production, are suffering. Many long-time industry workers are now facing a choice between leaving the industry or leaving California.

Hollywood Bubble of 2021–22

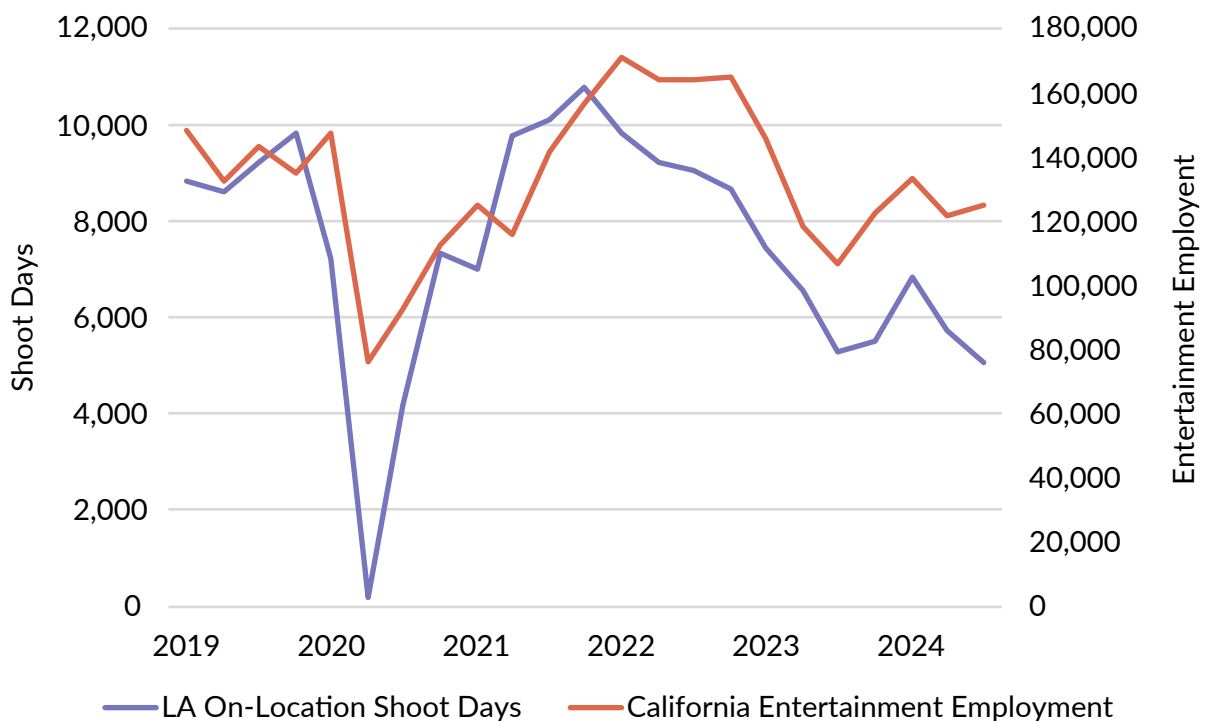
As the US emerged from the COVID-19 pandemic, streaming growth was high, and studios were desperate to increase production supply to meet streaming demand. While production in Hollywood exploded, it was based on assumptions for growth in streaming that were waning

even before the strike. Streaming revenue grew 150 percent between 2019 and 2023, while PwC projected 30 percent growth from 2023 to 2028.¹²

Although the strike was clearly disruptive to businesses, filming productions, and entertainment workers, the strike in and of itself was not the chief cause of the recent decrease in entertainment activity in Los Angeles. The pause in production gave studios a break from their frenzy of production. Reading the tea leaves, studios reassessed production relationships, canceling shows and contracts and moving productions based on a new hyperfocus on profitability instead of growth. This shift was based on a slowing of demand, not on increasing labor costs.

This narrative is visually evident in many of the graphs presented in this report. The common trend entails a significant drop in 2020 and a steep increase from 2021 into 2022, reaching higher than pre-pandemic levels, followed by a steep decline beginning in mid-2022, reaching lower than pre-pandemic levels. To illustrate this common COVID-bubble-decline trend, Figure 5 graphs on-location shoot days in Los Angeles and entertainment employment in California.

Figure 5: On-Location Shoot Days in Los Angeles and Entertainment Employment in California



Sources: FilmLA and Bureau of Labor Statistics (2025)¹³

The Problem with Hollywood

Without exception, the common theme of our conversations with producers and executives is that filming in Los Angeles is not at present economically viable—in many cases, even when a production receives incentives at their current levels. While it is easy for stakeholders to describe this as a Los Angeles County issue, the actual result of these cost issues is spread statewide. A consistently recurring problem California has faced since 1997, when production flight first noticeably expanded, is that not only does Los Angeles suffer from productions leaving, but so do all the productions that film around the state and rely on having local talent and facilities in the same time zone and a very short flight away.

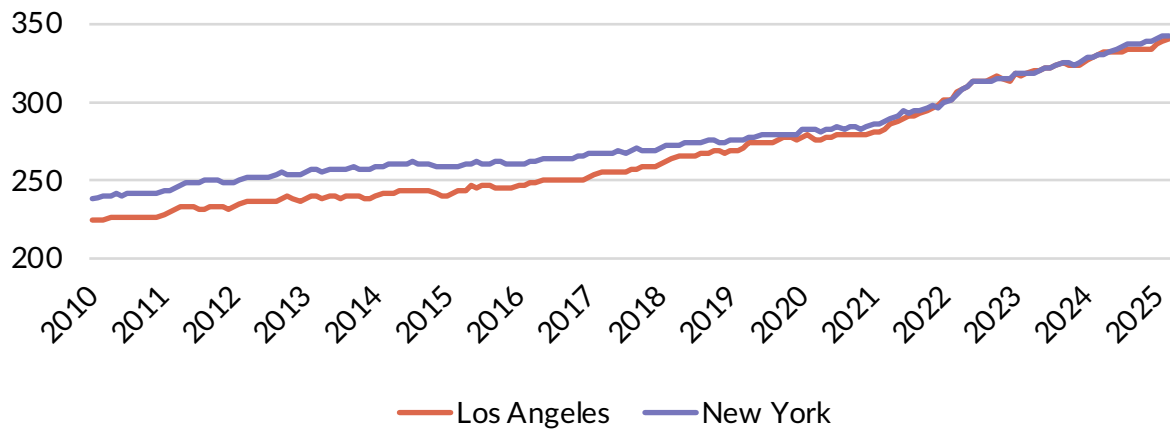
When it last overhauled the film incentives program in 2014, California was a very different economic and regulatory place. The dollar was relatively weaker, which helped raise costs for filming outside the United States, and many previously competing filming locations were either limited in the number of productions they could accommodate or had incentives that were less aggressive and more readily matched by those offered in the 2014 bill. However, the single largest issue consistently cited by stakeholders has been the dramatic increase in the cost of living and doing business for filming in California. Particularly since 2020 and the pandemic's impact on real estate, California has become a more complex location for productions and a more expensive place to live and do business.

Hollywood Is Too Expensive

Cost of Living

A long-time historical advantage for California was the combination of pleasant weather conditions and a relatively low cost of living and real estate. This cost advantage has declined since the early 2000s, but the comparison between Los Angeles and New York is particularly striking. The cost of living in Los Angeles, as captured by the Consumer Price Index, has caught up to the cost of living in New York. Prior to 2019-2020, as Figure 6 shows, Los Angeles was less expensive than New York. Since 2020, it is clear that Los Angeles is no longer less expensive than New York.

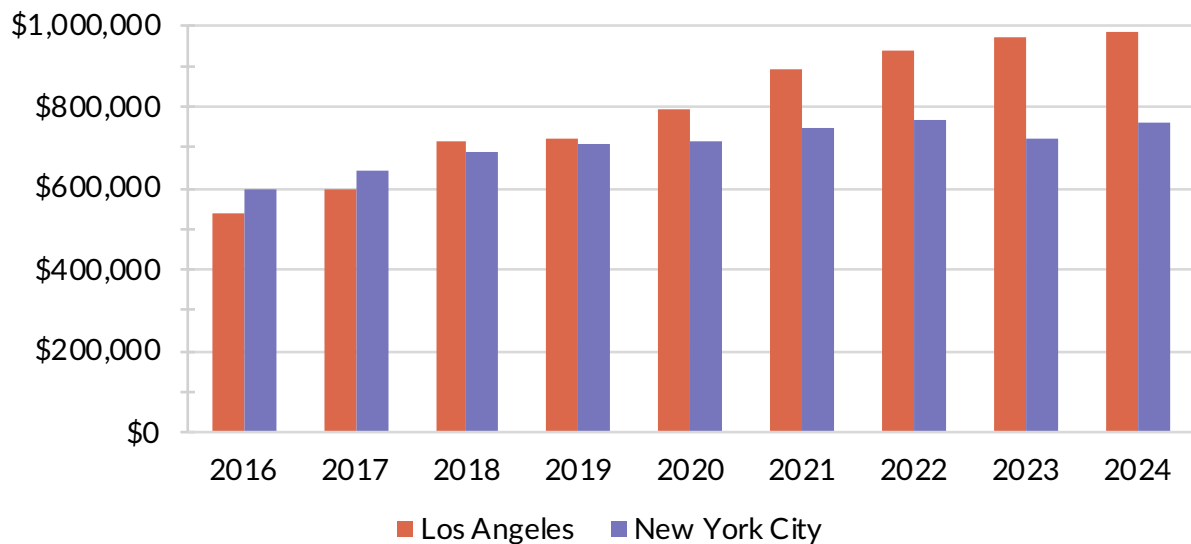
Figure 6: Consumer Price Index, 2010-2025



Source: Bureau of Labor Statistics (2025)¹⁴

Los Angeles housing prices have skyrocketed compared to New York City. Figure 7 displays housing prices through ZHVI, which indicates the cost of the average middle-income home in a city, using home values within the 35th to 65th percentile range. Before the pandemic, the average home in both Los Angeles and New York City was valued at around \$700,000. While the New York price has increased slightly, appreciating by 7 percent, Los Angeles has increased by 36.5 percent. The average home in Los Angeles is now valued at \$981,000, whereas the average home price in New York is \$760,000.

Figure 7: Cost of Purchasing a Home, December 2024



Source: Zillow (2025)¹⁵

Strong US Dollar

The cost for productions of doing business internationally is increasingly attractive when compared to the United States. Trends in currency exchange are providing an additional benefit to offshoring productions. In 2015, the British pound hovered between USD 1.6 and 1.7; now, it stays around 1.2 to 1.3, marking a significant reduction in costs for filming in a market that had previously been considered more expensive.¹⁶ The Canadian dollar remained close to parity with the US dollar from 2010 to 2014; now, it stays around USD 0.75.¹⁷ Similarly, the Australian dollar consistently traded at around USD 0.75 in 2015; now it stays around 0.65.¹⁸ This makes offshoring more lucrative for US production companies, whose cost of production can be reduced in these foreign markets.

Health-Care Costs

Labor costs are not a major factor in the choice of production location within the United States; cost of labor does not change significantly throughout the country, thanks to nationalized union contracts. However, the United States is losing labor-cost competitiveness with other countries due to health-care policy. Continued inflation of health-care costs in the United States, regardless of state, and the need for union work to qualify for health care is a significant cost factor on US productions that is not faced overseas. Countries with public or universal health care, including Canada, the United Kingdom, and Australia, do not pass the cost of health care on to businesses. Functionally, the health-care system in the US serves as an additional cost center that is not faced in most international locations.

Permit System

One of the most consistent complaints from producers and location managers has been the challenge of the permitting and filming process in Los Angeles. FilmLA operates as a nonprofit public benefit organization and the official film office for the county and city of Los Angeles and other regional cities. It is structured as a revenue-neutral organization with no financial support from local governments. Because it stands outside the governments, it also does not have the authority to override local limits on building and public land use, especially when productions are disrupted or are forced to shoot beyond their originally permitted hours.

The need to be financially independent also has significant consequences. As the cost of living and doing business in Los Angeles increases, FilmLA must maintain the quality of service while paying for its operations completely from the fees it collects. More than 80 percent of its operating budget is dedicated to personnel costs. To maintain the quality of service as prices rise, it has increased its fees every year since 2021. Between 2020 and 2024, this included a 33 percent increase in permit application fee, limiting each permit to seven days of filming at five locations, a 57 percent increase in still-photo application fee, and a 41 percent increase in the rider fee. Changes to the fee structure are underway at the city level, including a recently passed motion by LA City Council member Adrin Nazarian directing the City to recommend steps to make Los Angeles' permit process more efficient and cost effective.¹⁹

Other cities house their film offices and permitting authority within the local government. New York city’s film permit office, for example, is administered by the Mayor’s Office of Media and Entertainment, where operating expenses are paid through the city budget. The film-permitting offices in Sydney, London, and Atlanta are also part of the local governments, which allows increased levels of authority as well the ability to subsidize costs.

Because of a unique structure, Los Angeles has the most expensive production-permitting process. Table 1 compares Los Angeles to other key production hubs in terms of permit application fee cost.

Table 1: Production Permitting Costs in Key Global Production Hubs

City	Permit Application Fee (USD, 30 days)	Increase since 2020
Los Angeles	\$3,724	33%
New York City	\$1,000	40%
London*	\$540	65%
Atlanta	\$400	0%
Sydney	\$310	0%

**Each borough in London (UK) manages its own film permit application process. The amount shown here is from the city of London for very large crews.*

Source: Milken Institute (2025)

While permitting costs are not a key cost center for productions, they are large enough relative to other locations to be noticed and considered in producer and executive decisions on filming location.

Hollywood Is Too Complicated

Film Credits

Every step of the California film credit program is too complex, relative to its peers. Many of the key provisions within the permitting process were based not only on demand for permits dramatically outstripping supply but also on policy targets that are difficult to sustain, both because of the burden placed on production companies and the limited resources within the California Film Commission (CFC). The program was set up in a different era, one designed to best serve the network TV filming schedule, where year-round filming, shorter series, and more structured filming schedules were the norm. With this different entertainment environment, it is important to modernize.

California's incentives program is unique in its strict application window. The CFC opens the three-day application window once a year, offering slots from January to May depending on type of production.²⁰ This window is built on the assumption that production will start immediately after the credit is received. While this was the case under the broadcast studio system in the early 2000s, the process now leads to phantom productions and, in some cases, allocated credits not being utilized. Other states allow productions to apply on a rolling basis, a process favored by producers and executives as the turnaround time on planning for production has decreased, and streaming relaxes previous uniformity in TV release schedules.

The application's focus on job viability is overly complex. The CFC shifts the burden of calculating job viability onto the studios, which are ill-equipped to navigate the calculations, leading to issuing false promises on job creation. Applications are thus not judged on overall viability; instead, they are awarded to productions eased by inside knowledge of the bureaucratic complexity of the CFC application.

Film Permitting

Due to the structural and fiscal challenges of operating as an independent, self-funded organization, FilmLA also levies excess administrative burden and lacks the resources to be flexible with last-minute adjustments for productions. If a production runs over or is impacted by external events, FilmLA is not equipped to provide last-minute adjustments to permits.

FilmLA has far more additional permit fees and requirements than any other major production hub. In 2023, it introduced new administrative fees for use of drones, helicopters, gunfire explosions, and lane closures.²¹ Table 2 compares additional permitting fees in Los Angeles with those in London and Sydney, the cities with the next most-complex permitting process (complexity measured by number of additional fees). With additional funding from local governments, FilmLA could reduce the number of different fees and have enough staff to adapt flexibly to permitting needs.

Table 2: Additional Fees in Most Complex Permitting Systems

City	Additional Fees (USD)
Los Angeles	• Permit Rider Fee: \$148.75 • Monitor Fee: \$44.50/hour • Still-photo application and rider fee: \$135 • Notification fee: \$232 • Drone, helicopter, gunfire, special effects, lane closure fees: \$78 each • LA Fire Department film spot check fee: \$287
London	• Administration fee: \$190/hour • Site meetings: \$190/hour • Road closure: \$4,400
Sydney	• Traffic control assessment: \$190 • Site supervision: \$50/hour • Site inspection \$95

Source: Milken Institute (2025)²²

Complex and Fractured Labor Contract System

The fractured labor negotiation process between labor unions and studios creates a system of complex and disparate contracts and labor systems. When the International Alliance of Theatrical Stage Employees (IATSE) renegotiated its 2024–2027 contract, it signed different deals with each studio, with slightly different terms based on what the studios agreed to. There are two separate Teamsters unions that cover different geographies and that sign different agreements with the studios, with even more specific working conditions. Without a common template for operation, budgeting and forecasting are more difficult.

Across our interviews, independent producers highlighted the patchwork system of labor and studio contracts as adding significant complexity to their productions. This complexity makes navigating labor in the United States difficult and increases the incentive for studios to produce projects overseas.

Determinants of Industry Shift

Productions have shifted to locations within and outside the United States that offer a strong, skilled base of crew labor and any of the following:

1. Generous, efficient, and structured incentives in a major city
2. Low cost of doing business and relative convenience
3. An abundance of historic settings and sound stages available at a lower cost

Generous and Efficient Incentives Programs

Despite a higher cost of living, cities like New York, London, Sydney, and Toronto gain competitive advantage through their generous and efficient incentives programs.

New York is a prime example. It improves its film incentives program as part of its biennial budget process. Over the past two budget cycles, New York has cemented its attractiveness for film and TV production location. In 2023, New York doubled its annual incentives funding from \$420 million to \$700 million. It also increased the credit rate from 25 percent to 30 percent and expanded qualified expenses to include above-the-line wages.²³ “Above-the-line” refers to the key creative personnel in a film production, including principal actors, director, producers, and writers.

Governor Kathy Hochul secured additional expansions to attract film productions for the 2025–26 state budget. This will include an increased \$800 million annual funding level, an additional \$100 million for independent projects, and an expansion of above-the-line expenses as qualified costs. It also raises the credit rate to 40 percent for companies involved in at least three major productions in New York that year.²⁴ Post-production costs are qualified production expenditures for New York’s film credit, and post-production occurring outside of the New York city metropolitan area receives an additional 5 percent incentive rate.²⁵

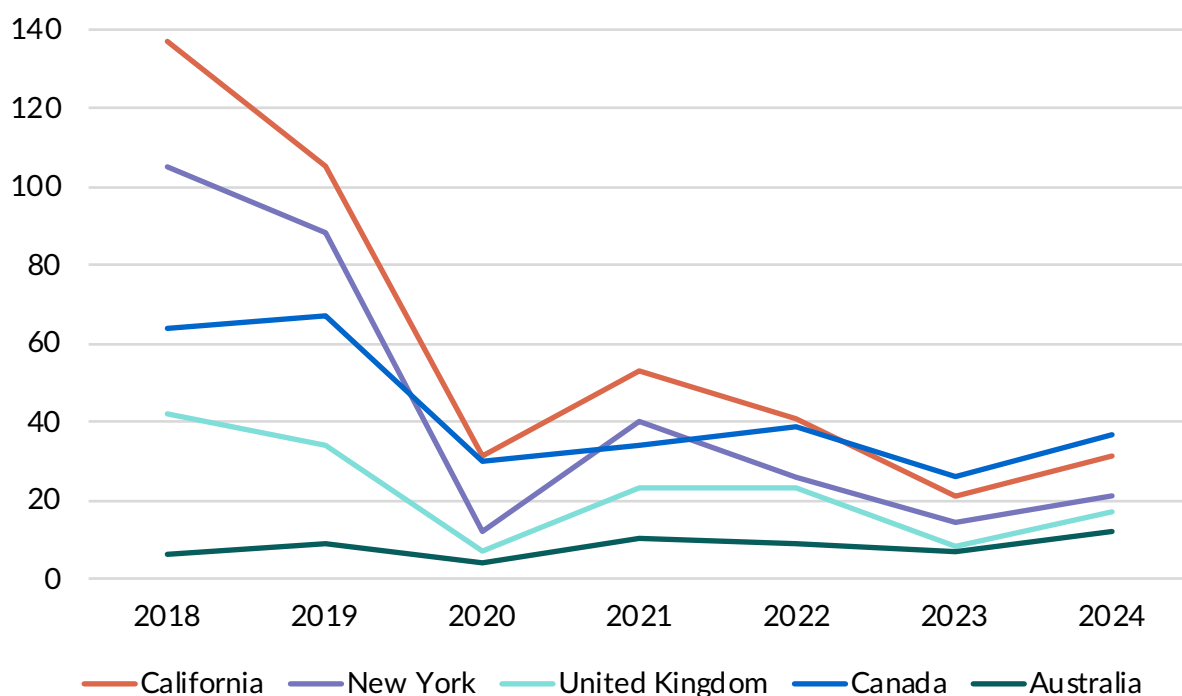
The effects of these film credit policies are evident in New York’s quick recovery after the 2023 Hollywood strikes. New York city on-location shoot days returned to pre-strike levels, while Los Angeles on-location shoot days have remained depressed.²⁶ Whereas California’s entertainment output continued to decline in 2024, New York increased its entertainment output. California

experienced a \$4.1 billion total loss due to lost share in entertainment production; New York gained share of entertainment production, leading to a \$2.04 billion total gain in output for its state economy.²⁷

Other strong incentives programs have closed off competition between California and its top competitors and shifted the economic balance clearly in favor of the latter. As shown in Figure 8, California was far and away the top location for TV/streaming and feature-film productions before COVID. In the years since, other states have suffered lesser declines in production shooting, and the gap between California and other key locations has significantly narrowed. In fact, Canada eclipsed California as the top location for feature films in 2023 and 2024. Canada has leveraged its competitiveness by offering filming incentives at the federal and provincial levels. In the US, film incentives programs are offered by state; there is no national film incentives program. While a national incentive program could also provide potential comparative advantage, the scope of this report is limited to improving the competitiveness of California through state or local levers.

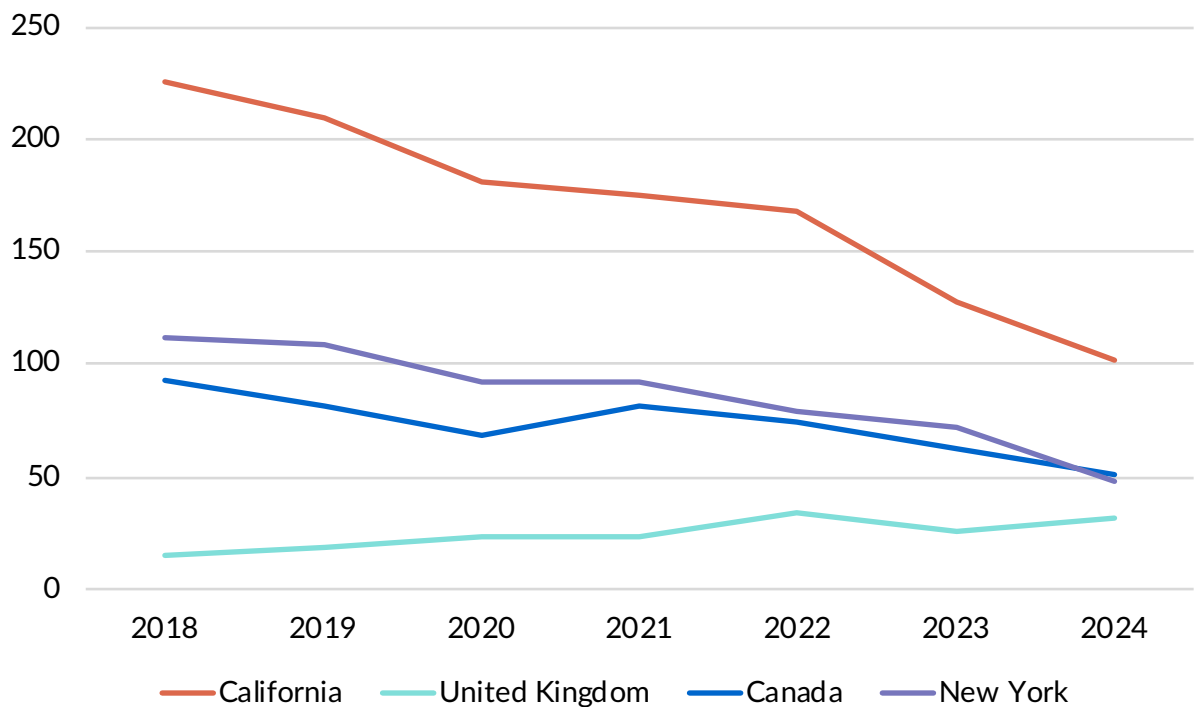
Figure 8: Production Location by Year, 2018–2024

8A: Feature Film Production Location by Wrap Year



Source: StudioSystem by Gracenote, a Nielsen Company (2025)

8B: TV/Streaming Production Location by Year Aired



Source: StudioSystem by Gracenote, a Nielsen Company (2025)

Low Cost of Doing Business and Convenience

US states that combine low cost of living with easy access, including Texas, North Carolina, New Mexico, and Tennessee, benefit from the production shift out of California.

Texas quadrupled its biennial incentives funding from \$45 million to \$200 million and eased its residency requirement for cast and crew from 70 percent to 55 percent in 2023. Bipartisan legislation (SB22 and HB4568) is pending, which would double the credit's biennial funding for the 2026–27 budget to \$498 million, with \$48 million set aside for small films and commercials.²⁸ Because of the residency requirements for its incentives program and local workforce development programs, Texas cultivated a local skilled entertainment labor pool. The Lone Star State now has the third-largest entertainment workforce in the United States, and it continues to grow. Whereas Texas' entertainment workforce was 9 percent larger than Georgia's in 2020, it was 42 percent larger than Georgia's in 2023.²⁹

Low-Cost Historic Backdrop and Sound Stages

Some countries leverage low-cost sound stages and on-location scenery to attract film production, particularly for large-scale historical and fantasy projects. This group includes Spain, Hungary, Malta, Romania, Bulgaria, Ireland, and Morocco.

Game of Thrones and *House of the Dragon* productions clearly took advantage of these destinations' benefits. *Game of Thrones* used the on-location topography and architecture of Malta, Northern Ireland, Iceland, Scotland, Croatia, Spain, and Morocco, along with sound stages in Belfast, Northern Ireland, and Calgary, Canada. *House of the Dragon* is filming on location in the United Kingdom, Spain, and Portugal, with sound stages outside London.

Georgia's Fall

Once hailed as the darling of the entertainment industry, the state of Georgia is notably absent from the examples above. Three major issues are causing Georgia's motion picture output and employment to drop.

Georgia is losing productions because of an insufficient skilled labor pool for big-budget movies. While it has done well for certain ongoing television productions where long-term relationships can be maintained, its labor pool does not have the depth to support major one-off productions.

Georgia saw labor costs, particularly transportation labor costs, increase substantially in 2023. While most entertainment unions are national, Georgia is represented by a different Teamsters local than California, New York, and most of the rest of the country. The Georgia Teamsters local renewed its agreement in 2023 with substantially higher rates than the other entertainment Teamsters locals, which put it at a disadvantage.

Though it boasts the largest tax credit program in the US, Georgia is notorious for extreme delays in getting credits to productions. The slowdown in receiving the funds has impacted studio calculations for locating to Georgia and limits the draw of its film incentives.

Because of these three challenges, Georgia can no longer be considered part of the group that attracts productions through generous and efficient film-incentives programs.

The impact of Georgia's lack of labor pool, increasing labor costs, and inefficient incentives program is evident in its current struggle. Georgia experienced steep losses in entertainment employment during 2023, with a decline of 50 percent between Q3 2022 and Q3 2024. Its entertainment labor force is now 35 percent smaller than it was before the pandemic.³⁰ It is the only state among the top 10 entertainment states whose entertainment output decreased between 2019 and 2023.³¹

Expanding the California Film Credit Program

The California incentives budget must increase to remain competitive with lucrative film credit programs in New York, Georgia, London, Sydney, Canada, and elsewhere. The current \$330 million annual budget was set in 2014 and has not been adjusted. Georgia, the United Kingdom, Canada, and Australia have incentives programs without capped annual budgets. New York's annual budget of \$700 million will increase in the 2026–27 fiscal year to \$800 million.

As the calculations below show (Tables 3, 4, and 5), a \$750 million film credit budget would add \$7.55 billion annually to the California economy, an increase of \$4.99 billion over the current program. This would create at least 14,866 jobs throughout the California economy, an equivalent of 13,344 full-time jobs. This adds approximately 3.5 million days of work across the California economy. Rebecca Rhine of the Directors' Guild testified to the California Assembly Committee on Revenue and Tax that increasing the film incentives budget to \$750 million would produce between 400,000 and 500,000 more days of work in the California entertainment industry annually and would create 30,000 new crew member jobs and 50,000 new background actor jobs annually.³²

The California Film Commission, which administers the film credit program, collects data on applicants. Among projects denied film incentives in California over the past three fiscal years, 74 percent of estimated film production expenditure has left the state. Based on this rate, an additional dollar of allocated incentive creates an additional \$5.50 in production expenditures in California. Expanding the annual allocation of film credits would increase production expenditures in California and produce benefits for the whole economy.

Table 3 assumes that a production's likelihood of leaving California after being denied a film credit allocation stayed consistent over the previous three years. Our conversations with executives and producers showed that this trend has grown more pronounced since the 2023 strikes.

Table 3: Effect of the Film Credit Program at Different Budget Levels

Film Credit Budget	New Spending by Production Companies	Total Added Output to the California Economy	Total Added California Jobs
\$500M	\$2.75B	\$5.03B	14,975
\$750M	\$4.13B	\$7.55B	22,463
\$1B	\$5.5B	\$10.06B	29,951

Source: Milken Institute calculations based on California Film Commission data and IMPLAN Multipliers (2025)

Assuming a higher rate of production flight, if 85 percent of film production expenditure left the state without the credit, a dollar of allocated incentive would create an additional \$6.40 in production expenditures in California. Table 4 shows the benefits of the film incentives program at different budget levels under this scenario.

Table 4: Effect of the Film Incentives Program at Different Budget Levels

Film Credit Budget	New Spending by Production Companies	Total Added Output to the California Economy	Total Added California Jobs
\$500M	\$3.2B	\$5.85B	17,425
\$750M	\$4.8B	\$8.78B	26,139
\$1B	\$6.4B	\$11.71B	34,852

Source: Milken Institute calculations based on California Film Commission data and IMPLAN Multipliers (2025)

Assuming that 85 percent of production expenditure would leave California if credit allocation were denied, increasing the California film credit budget from \$330 million would give rise to the outcomes shown in Table 5.

Table 5: Effect of Increasing the California Film Credit Budget from \$330 Million

Film Credit Budget	Additional Output to the California economy	Additional California Jobs Created
\$500M	\$2.02B	6,013
\$750M	\$4.99B	14,866
\$1B	\$7.69B	23,699

Source: Milken Institute calculations based on California Film Commission data and IMPLAN Multipliers (2025)

It is vitally important to note that these projections are particularly tied to new jobs being added, or in many cases, re-created. What is not captured in these assumptions is the significant pressure that workers in film production—and the ancillary businesses—are facing right now. As we have discussed, economic pressures on those workers and businesses are only likely to increase.

Past reports have noted a slightly positive effect of film credit allocation on state and local taxes. Our analysis for the new credits is inconclusive because of shifting economic calculations and a changing industry, which make it difficult to estimate the fiscal impact of these policies in a way we could compare to previous reports that calculate a return on investment rate.

Recommendations

Increase the California Film Credit Budget

Expanding the film credit annual budget would align the program's competitiveness with New York, Georgia, Texas, and other top states and countries. In addition, it would create high-paying, high-skilled jobs and contribute significantly to the California economy. However, merely raising the budget would not generate the growth and competitiveness that California's entertainment industry requires.

Increase Incentive Rate

Even after doubling the incentives budget, California's base rate of 20 percent will restrict the types of productions willing to film there. Georgia and New York both offer 30–40 percent. To remain competitive, California's standard credit rate should be at least 30 percent, with a 5 percent offset for productions filming outside the TMZ. Refundability of the credits will be incorporated into the California film credit system this year. This should continue to be included in future years.

Increasing the credit rate would likely attract larger and higher-quality productions that are currently not considering California. New York expanded its budget from \$420 million to \$700 million in 2023 and increased its base rate from 25 percent to 30 percent. In-state spending by productions with credit allocations increased from \$2.099 billion in 2022 to \$4.783 billion in 2024.³³ This represents a large increase in direct production expenditure per incentive dollar, up from \$5 in spending per credit dollar in 2022 to \$6.8 in 2024. Based on CFC data, California's direct production expenditure per incentive dollar currently sits at around \$8. Increasing the credit rate would thus likely increase the expenditure rate per incentive dollar and expand the impact of the program on the California economy. However, the drawback of an increase in the base rate—whether from 25 percent to 30 percent or even to 35 percent—is that there is less money to allocate to specific productions. Our recommendations and projections view the 30 percent base as the most reasonable balance.

Most major competitors, including New York, Georgia, Texas, New Mexico, and Nevada, allow above-the-line labor as an eligible expenditure. For California, above-the-line labor expenses make less sense as an eligible expenditure. In other states, talent is moving temporarily to the film set, and their dollars would not otherwise be spent in the state. In the case of California, most of the above-the-line talent already lives in the state. In addition, the Los Angeles County

Economic Development Corporation argues that exclusion of above-the-line expenditures from credit eligibility is the primary reason that California's film credit return on investment is high.

Because it will not include above-the-line labor, California must recognize that it needs to use other incentives to remain competitive. A holistic incentives program should explicitly target the attraction of pre- and post-production. A high minimum-spend threshold for productions deters productions from completing pre- and post-production work in California. California should follow one of the following three courses:

- Set aside a separate incentive for pre- and post-production expenditures, as New York and the United Kingdom have done,
- Explicitly state that pre- and post-production expenditures count toward their minimum spend, or
- Include post- and pre-production as a structural line item.

Either course would incentivize local pre- and post-production and reshoots that sustain local jobs and recapture skilled opportunities best suited to places like California, where jobs are specialized and concentrated.

Expand Qualifications for Funding

Shorter TV shows and unscripted television must be eligible for the California tax incentive. These traditionally lower-budget productions were excluded in a different era of television production. Modernizing the film incentives program must include updating the types of productions eligible for the credit.

Currently, TV shows with episodes less than 40 minutes long are ineligible to apply for California's credit program. These restrictions are a holdover from the pre-streaming era. Shows under 40 minutes were traditionally half-hour sitcoms: low-budget productions shot on a soundstage. In 2025, streaming platforms have made TV episode length irrelevant. As they opt for longer episodes and shorter seasons, network TV seasons have followed suit. In 2018, the average season was 15.4 episodes for a network scripted show and 11.1 for a streaming scripted show; in 2023, those have dropped to 10.2 and 9.6 episodes per season.³⁴

Additionally, unscripted television is currently excluded from incentive eligibility. Los Angeles sound stages are hosting 43 percent fewer talk show projects than in 2018; unscripted on-location shoot days decreased by 18 percent between 2018 and 2024. Rob Lowe's game show *The Floor* was shot in Ireland because "it's cheaper to bring 100 American people to Ireland than to walk across the lot at Fox, past the sound stages, and do it there... there are no tax credits [in LA], so like, all those other places are offering 40 percent."³⁵ Unscripted productions serve as a vital economic lifeline for tradespeople in between larger gigs. Without a steady supply of productions in Los Angeles, including unscripted shows, entertainment workers are more likely to leave the city.

Institute a More User-Friendly Film Incentives Program Led by the California Film Commission

Producers and stakeholders consistently describe the California film incentives program as “user unfriendly.” By replacing applicant-calculated job ratio metrics with a mandated program assessment, moving to a rolling application process, and increasing staffing, California could encourage more productions to stay in-state.

The basics of the California film credit program have stayed the same for the last 10 years because there are no built-in mechanisms for fundamental review. The film credit program should include a mandated assessment every four years to evaluate the program according to job and economic benchmarks, as well as to judge the competitive and comparative landscape of film credits as a means to attract and maintain production within the state. This assessment should include internal calculations of job creation. The current California credit application requires projects to calculate job viability through a complex jobs ratio. This favors those who can navigate a technical bureaucratic application over those with the best projects for California. Producers and executives do not have the experience that the CFC has about the types of projects that will be successful. More likely than not, it leads to inflation or miscalculation of numbers in applications because, at best, producers lack the skills to navigate the job ratio calculation and, at worst, they are incentivized to inflate their numbers. Shifting the burden of any job-creation calculation back to internal assessment at the California Film Commission would enable a more predictable process and lighten the administrative burden of the application.

California should move away from its rigid three-day application window toward a rolling application process. That would align it with the structure of the most competitive incentives programs and offer producers more flexibility. It would also reduce the number of allocated credits that ultimately go unused.

The CFC needs a large enough staff to operate an efficient and expanded film incentives program. If the CFC is to administer a \$750 million budget, accept applications on a rolling basis, and take on the responsibility of regular program assessment, it needs a large, well-trained staff. Our hope is that the staff will more than double with the implementation of these transformative policies.

Adjust Movie Tiers

Movies are categorized on the basis of total expected spend. Spending level caps and categories were established in 2014 and have not been updated since. For example, independent film credits apply only to the first \$10 million of qualified expenditures. Recognizing that movies cost significantly more to make in 2025, this threshold should be updated to at least \$14 million to adjust for inflation. Making adjustments to provide greater coverage for independent films, as well as extending the tiers considered mid-budget, would provide an opportunity for

a significant increase in the number of films that are shot wholly, or in large part, in the state, as well as assist productions for which access to local infrastructure will significantly benefit their budgets.

Reassess FilmLA Fiscal Structure

Los Angeles and other California cities need to assess their role in adding to the complexity and cost of filming in the state. To regain competitiveness, the fiscal structure of FilmLA must change. To lower prices and streamline procedures, FilmLA can no longer operate as an independent, self-sustaining entity. It needs to be subsidized by local governments. Steep production fees and complex processes hurt production competitiveness in the region.

However, FilmLA should not be dissolved or absorbed into a local government bureaucracy. Instead, it should be empowered to work across and with various jurisdictional bureaucracies to expedite processes where needed. The key advantage of FilmLA over other cities' permitting offices is its cross-jurisdictional collaboration.

Endnotes

1. “Regional Input-Output Modeling System (RIMS II),” Bureau of Economic Analysis, accessed May 4, 2025, <https://apps.bea.gov/regional/rims/rimsii/>; “Gross Domestic Product: Motion Picture and Sound Recording Industries (512) in California,” *FRED Economic Data*, Federal Reserve Bank of St. Louis, accessed May 4, 2025, <https://fred.stlouisfed.org/series/CAMOTPICSNDNGSP>. Milken Institute calculation based on Bureau of Labor Statistics’ (BLS) RIMSII and FRED GDP data, comparing 2019 to 2023.
2. “Wages by Occupation and Industry,” State of California Employment Development Department, accessed May 4, 2025, <https://labormarketinfo.edd.ca.gov/data/wages.html#OES>.
3. “Wages by Occupation and Industry.”
4. “NAICS 5121 Motion Picture and Video Industries, California,” *Quarterly Census of Employment and Wages*, Bureau of Labor Statistics, accessed May 4, 2025, https://data.bls.gov/cew/apps/table_maker/v4/table_maker.htm?type=17&from=2020&to=2024&qtr=1&own=5&ind=5121&area=06000&supp=1.
5. “Sound Stage Occupancy/Stage Shoot Numbers Slip in New FilmLA Report,” FilmLA, April 3, 2025, <https://FilmLA.com/sound-stage-occupancy-stage-shoot-numbers-slip-in-new-FilmLA-report/>.
6. “FilmLA Releases 2024 On-Location Production Report,” FilmLA, January 15, 2025, <https://FilmLA.com/FilmLA-releases-2024-on-location-production-report/>.
7. “FilmLA Releases 2024 On-Location Production Report.”
8. “NAICS 5121 Motion Picture and Video Industries, California.”
9. Sarah Nash, “This Iconic Prop Warehouse in North Hollywood Is Closing—and Selling Its Full Collection,” *Secret Los Angeles*, February 28, 2025, <https://secretlosangeles.com/faux-library-studio-props-closure-in-hollywood/>; Ted Chen and Karla Rendon, “Santa Monica Costume Shop to Shut Down After Nearly 50 Years in Business,” *NBC Los Angeles*, July 17, 2024, <https://www.nbclosangeles.com/news/local/ursulas-costumes-santa-monica-to-close/3461372/>; Aaricka Washington, “LA Costume Shop Closes,” *LAist*, May 7, 2024, <https://laist.com/brief/news/arts-and-entertainment/staple-of-las-theater-community-valentinos-costume-group>.

10. Kurtis Lee, "As Hollywood Struggles, the Region's Economy Feels the Pain," *New York Times*, December 26, 2024, <https://www.nytimes.com/2024/12/26/business/economy/hollywood-southern-california-economy.html>.
11. Andrew Gumbel, "Dry Cleaners, Restaurants, Hotels: The Ripple Effects of Hollywood's Strike," *The Guardian*, July 29, 2023, <https://www.theguardian.com/culture/2023/jul/29/los-angeles-actors-writers-strike-businesses-affected>.
12. "Seizing Growth Opportunities in a Dynamic Ecosystem," PWC, July 16, 2024, <https://www.pwc.com/gx/en/issues/business-model-reinvention/outlook/insights-and-perspectives.html>.
13. "FilmLA Releases 2024 On-Location Production Report"; "Private, NAICS 5121 Motion Picture and Video Industries, California," QCEW, US BLS, https://data.bls.gov/cew/apps/table_maker/v4/table_maker.htm#type=17&from=2023&to=2024&qtr=1&own=5&ind=5121&area=06000&supp=1.
14. "All Items in Los Angeles-Long Beach-Anaheim, CA All Urban Consumers, Not Seasonally Adjusted," Bureau of Labor Statistics, accessed May 2, 2025, <https://data.bls.gov/dataViewer/view/timeseries/CUURS49ASA0>; "All Items in New York-Newark-Jersey City, NY-NJ-PA, All Urban Consumers, Not Seasonally Adjusted," Bureau of Labor Statistics, accessed May 2, 2025, https://data.bls.gov/timeseries/CUURS12ASA0?amp%253bdata_tool=XGtable&output_view=data&include_graphs=true.
15. "Los Angeles, CA Housing Market," Zillow, accessed April 29, 2025, <https://www.zillow.com/home-values/12447/los-angeles-ca/>; "New York, NY Housing Market," Zillow, accessed April 29, 2025, <https://www.zillow.com/home-values/6181/new-york-ny/>.
16. "British Pound to US Dollar Exchange Rate Chart," XE, accessed April 28, 2025, <https://www.xe.com/currencycharts/?from=GBP&to=USD>.
17. "Canadian Dollar to US Dollar Exchange Rate Chart," XE, accessed April 28, 2025, <https://www.xe.com/currencycharts/?from=CAD&to=USD>.
18. "Australian Dollar to US Dollar Exchange Rate Chart," XE, accessed April 28, 2025, <https://www.xe.com/currencycharts/?from=AUD&to=USD>.
19. Teresa Liu, "LA City Council Moves to Cut Fees, Ease Rules to Keep Film Productions Local," *Daily News*, April 30, 2025, <https://www.dailynews.com/2025/04/29/l-a-city-council-moves-to-cut-fees-ease-rules-to-keep-film-productions-local/>.
20. "Application," California Film Commission, accessed April 28, 2025, <https://film.ca.gov/tax-credit/application/>.
21. "Service Pricing to Increase for FilmLA, Other Jurisdictions on July 1," FilmLA, June 19, 2023, <https://FilmLA.com/service-pricing-to-increase-for-FilmLA-other-jurisdictions-on-july-1/>.

22. "Service Pricing to Increase for FilmLA, Other Jurisdictions on July 1," FilmLA; "Filming Fees," City of London, May 9, 2023, <https://www.cityoflondon.gov.uk/about-us/filming/filming-fees>; "Apply for a Filming or Photography Permit," City of Sydney, accessed April 28, 2025, <https://www.cityofsydney.nsw.gov.au/business-permits-approvals-tenders/apply-for-filming-or-photography-permit>.
23. "Attention Moviemakers! New York State's Film Tax Credit Enhancements Are a Must-See," Empire State Development, New York State, November 15, 2023, <https://esd.ny.gov/esd-media-center/esd-blog/attention-moviemakers-new-york-state-film-tax-credit-enhancements-are-a-must-see>.
24. Kathy Hochul and Blake G. Washington, *Your Family Is My Fight: FY2026 NYS Executive Budget* (New York State, January 21, 2025), <https://www.governor.ny.gov/sites/default/files/2025-01/FY2026-Executive-Budget-Briefing-Book.pdf>.
25. "New York State Film Tax Credit Program," Empire State Development, New York State, accessed April 29, 2025, <https://esd.ny.gov/new-york-state-film-tax-credit-program-production#eligibility>.
26. "Film Permits," NYC Open Data, April 28, 2025, https://data.cityofnewyork.us/City-Government/Film-Permits/tg4x-b46p/about_data; "FilmLA Releases 2024 On-Location Production Report."
27. "Regional Input-Output Modeling System (RIMS II)," Bureau of Economic Analysis; "Gross Domestic Product: Motion Picture and Sound Recording Industries (512) in California," Federal Reserve Bank of St. Louis; Milken Institute calculation based on Bureau of Labor Statistics RIMSII and FRED GDP data, comparing 2019 to 2023.
28. Jasper Scherer and Kayla Guo, "\$337 Billion, Two-Year Budget Gets Texas House Approval," *The Texas Tribune*, April 11, 2025, <https://www.texastribune.org/2025/04/11/texas-house-budget-approval/>.
29. BLS, QCEW.
30. "Private, NAICS 5121 Motion Picture and Video Industries, Georgia," QCEW, US BLS, https://data.bls.gov/cew/apps/table_maker/v4/table_maker.htm#type=17&from=2020&to=2024&qtr=1&own=5&ind=5121&area=13000&supp=1.
31. "Gross Domestic Product: Motion Picture and Sound Recording Industries (512) in Georgia," FRED, St. Louis Federal Reserve, September 27, 2024, <https://fred.stlouisfed.org/series/GAMOTPICSNDNGSP>.
32. "Assembly Standing Committee on Revenue and Taxation," CalMatters, April 28, 2025, <https://calmatters.digitaldemocracy.org/hearings/258985?t=883&f=6bac9db3d-313d5c1f5237e134b2aeaa>.

33. "Film Tax Credit 2024 Quarterly Report," Empire State Development, accessed April 30, 2025, <https://esd.ny.gov/esd-media-center/reports/film-tax-credit-2024-quarterly-reports>.
34. "Seasons Are Getting Shorter," Parrot Analytics, April 14, 2024, <https://www.parrotanalytics.com/insights/seasons-are-getting-shorter/>.
35. Katie Campione, "Rob Lowe Claims California Leadership's Handling of Domestic Film & TV Production Exodus Is 'Criminal' as State Seeks Solutions," *Deadline*, March 26, 2025, <https://deadline.com/2025/03/rob-lowe-slams-california-film-tv-production-decline-1236351156/>.

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