



# THE DAY AFTER TOMORROW

Hollywood's Future Remains  
Uncertain in the Wake of the  
SAG-AFTRA and WGA Strikes

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Otis College Studies on the Creative Economy:  
Entertainment Production

December 2023

## Otis College Studies on the Creative Economy: Entertainment Production

Otis College of Art and Design has been a leading chronicler of California's creative economy for over 16 years, most notably through its annual *Otis College Report on the Creative Economy*. Over the coming months, it will release targeted and topical research studies on the state of L.A.'s Film and Television industry. The recent WGA and SAG-AFTRA strikes caused a major rupture in Hollywood, but they represented an expression of underlying changes that have been shaping the industry for the past decade. Many insiders believe that these changes will continue in the coming years, further transforming the industry's core business model and its relationship to its workers.

To understand how these changes might impact the Entertainment Industry (also referred to as "the Industry"), Otis College commissioned Westwood Economics and Planning Associates to develop a series of studies that explore contemporary issues the industry faces, including employment trends, technology change, production infrastructure and capacity, and other pressing topics. This first snapshot of the industry, and prelude to subsequent research, includes an analysis of the factors shaping employment trends in the industry, as well as in-depth interviews with industry professionals.

### About the Study

This initial study provides an immediate assessment of the impact of the recent strikes on film and television workers in Los Angeles. The analysis addresses two primary questions: "What impact have the strikes had on film and television workers, if any?" and "What are the prospects for a fast recovery in the Industry, now that the strikes are over?"

This release includes a detailed analysis of how the strikes affected employment in the Industry, using data from the Bureau of Labor Statistics (BLS) and the California Employment Development Department (EDD), a job postings analysis of Lightcast data, and 19 interviews with industry professionals, including above-the-line and below-the-line talent, producers, talent agents, and policymakers. A subsequent study will analyze the post-strike recovery, as well as how the new labor agreements will shape the nature of work in the Industry.

## Key Findings

**The present study reveals that the strikes have had a noticeable impact on Entertainment Industry employment, as well as shooting activity, but that these changes should be considered within the context of a broader restructuring that is occurring across the Industry. The strikes may have ended, but important questions remain about the Industry's trajectory.**

**The key findings of the study are as follows:**

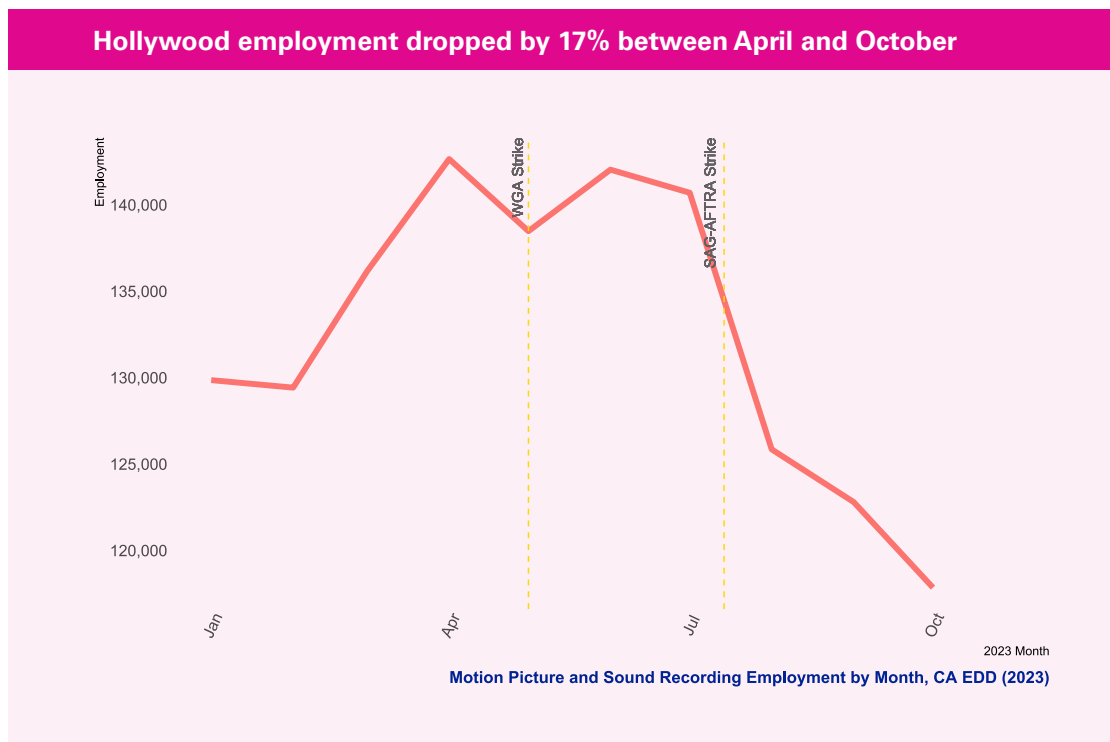
- From May 2023 (when the Writer's Guild first took strike action) to October 2023, there was a 17% drop in the number of workers employed in the Entertainment Industry in Greater Los Angeles.
- These job losses have varied by occupation. Actors and Writers—who were on strike—have seen the biggest employment contraction, while Producers and Directors, Agents and Managers, and Artists and Related Workers have seen modest employment growth over this period.
- Job Posting data—which tracks hiring activity—shows a divide between Production and Management occupations, with contraction in the former and some growth in the latter.
- During the strikes, many of the post-pandemic employment gains have been erased. However, the strikes had a much smaller impact on employment in the Industry than the losses emerging from the pandemic-related halts to production. This is because the pandemic led to the virtual shutdown of most forms of production, whereas this year production has continued in non-striking parts of the Industry, such as Reality TV and Commercials.
- Beyond the short-term impact, the strikes should be understood within the context of a broader restructuring of the Industry: employment was contracting in the Industry even before the strikes. Employment in the Industry peaked in May 2016, and reached nearly the same level in August 2022. Since this time, employment has shrunk by 26%.
- The bigger picture reveals that Peak TV, rather than the strikes, represents the more enduring threat to employment in the Industry. An arms race among streaming platforms heralded a surge in production between 2016 and 2022, as platforms pursued subscriber growth at all costs. As this business model has transitioned into one which emphasizes profitability and sustainability, we have likely reached the highwater mark in production.
- In addition, Artificial Intelligence, which figured prominently in strike negotiations, is a looming threat to employment in Hollywood, given its capacity to perform an increasing number of functions within the industry.

# PART 1

## Strike Impacts on Hollywood’s Workforce

### Hollywood Employment Contracted 17% During the Strike

Nearly one out of every six Entertainment Industry workers in Greater Los Angeles[1] have lost their job since the start of the strikes. The Bureau of Labor Statistics (BLS) tracks the employment of “Motion Picture and Sound Recording” workers, which includes most film and television production activities, as well as sound production.[2] Entertainment Industry employment in Los Angeles this year peaked in April, when 142,652 workers were employed by the Industry. As of October, there were 24,799 fewer workers employed by the Industry than there were in April.



The research team was initially surprised that employment had increased during the pre-strike period of 2023. This too, however, may have been linked to the strikes. Industry representatives explained that showrunners and studios accelerated activities last winter, with the expectation that there would be a strike-related work stoppage. For their part, production talent may have been more willing to work early in the year so that they could earn income and maintain health insurance coverage in the event of a possible strike.

A member of the Director's Guild described her urgency to get work during the winter:

**“In the chatter about the strike, as the year turned into January 2023, I was like... I better get out ahead and... try and earn my health care in the first part of the year.”**

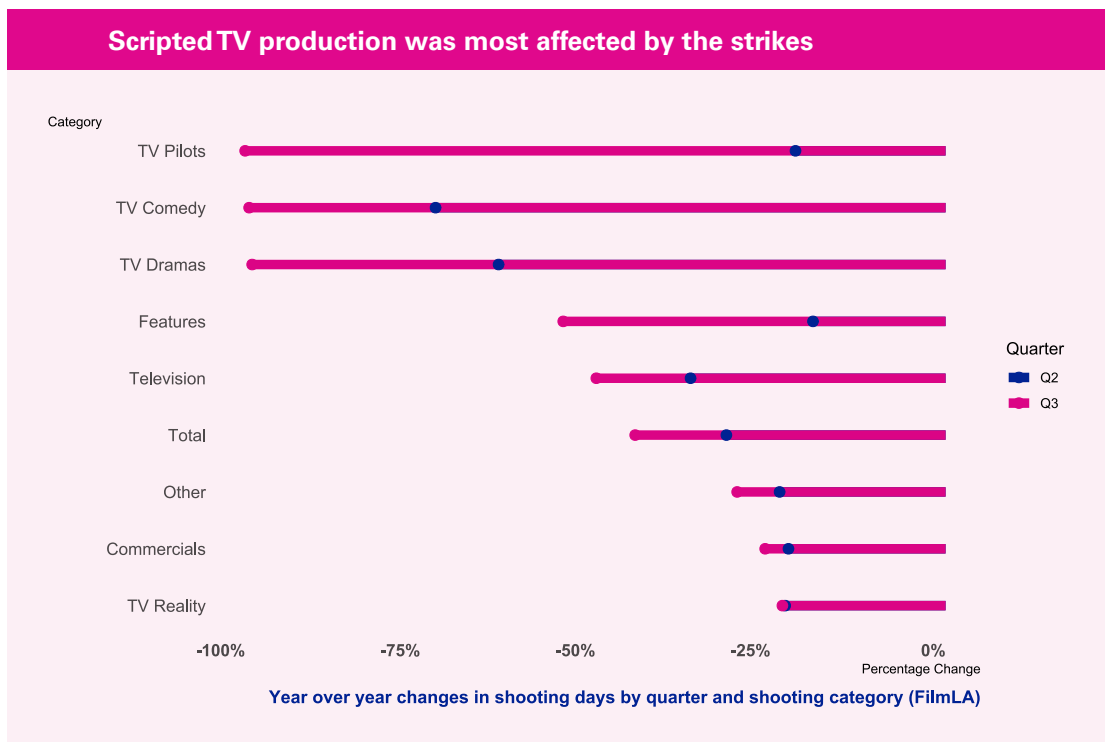
These job cuts translate into real economic losses for production workers and the wider economy. The research team estimated wage losses in the Industry resulting from decreased shooting activity during the strikes. Based on conservative assumptions about how reduced shooting activity translates into wage losses for workers, we estimate that Greater Los Angeles Entertainment Industry workers lost roughly \$1.4 billion in wages between April and September 2023, or roughly 0.5% of the industry's annual economic activity.

Of course, these aggregate figures belie the individual toll of the strikes, especially on production workers. A video editor who works in Los Angeles remarked on the devastating toll the strikes are taking on their personal finances.

**“All of our savings were exhausted... We were looking at getting a car and maybe trying to get a place of our own instead of renting, and all of those kinds of goals had to be put on hold because our cost of living is just emptying out our savings.”**

## Shooting activity fell almost 100% in some parts of the Industry

Outside of employment, the strikes' impact can be seen on soundstage (shooting) activity. According to FilmLA's research office, which tracks soundstage activity, there was a 29% drop in the total number of indoor shooting days in the second quarter (Q2) of 2023, compared to Q2 2022, and a 44% drop in Q3 2023, compared to Q3 2022. For the segments of filming most affected by the strikes, the numbers are quite notable. In Q3 2023, shooting of TV Dramas, TV Comedies, and TV Pilots ground to a virtual halt, dropping by almost 100% compared to a year earlier. In addition, filming of Feature Films and Television fell 55% and 50% respectively, compared to the same quarter a year earlier. This followed already sizable drops in Q2 activity across these segments. Shooting activity found support because a number of shooting activities were exempt from the strikes, including: Reality TV, Commercials, and Still Photography, while more than 900 productions were able to secure exemptions in the form of interim agreements with SAG-AFTRA.

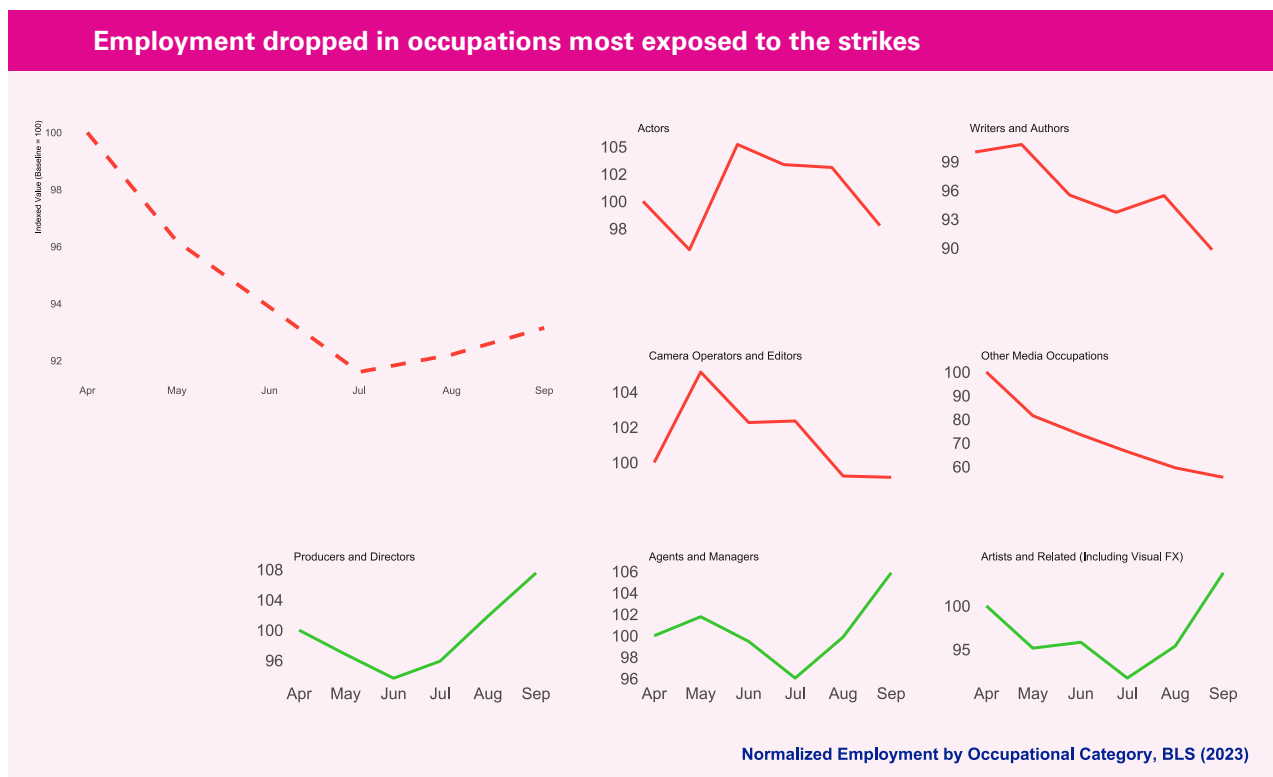


## Strike Impacts Varied by Occupation

Within the Industry, different workers perform very different functions, and each was affected differently by the strikes. Data from the Bureau of Labor Statistics’ “Current Population Survey” enables us to track how different occupations fared during the strikes. Entertainment production workers can broadly be divided into Actors, Writers, Camera Operators and Editors, “Other Media Occupations” (a category which mostly includes technical production workers), Producers and Directors, Agents and Managers, and “Artists and Related Workers,” which includes visual effects artists and animators. Due to data limitations, the figures presented below refer to workers in the State of California, although Los Angeles area workers represent the overwhelming majority of this sample.

The fate of individual occupations varied significantly. As expected, Actors and Writers saw the most rapid employment declines, along with Camera Operators and Editors, and Other Media Occupations—a group that includes broadcast, sound, and lighting technicians. This subset of occupations was the most directly exposed to the shutdown of scripted production. The timing of employment declines for Writers and Actors was consistent with the timing of SAG-AFTRA strikes in mid-June.

Entertainment production workers (**left panel below**) can broadly be divided into Actors, Writers, Camera Operators and Editors, “Other Media Occupations” (a category which mostly includes technical production workers), Producers and Directors, Agents and Managers, and “Artists and Related Workers,” which includes visual effects artists and animators. Due to data limitations, the figures presented below refer to workers in the State of California, although Los Angeles area workers represent the overwhelming majority of this sample.



Employment did not shrink in all occupational groups in the Industry, however. During the strikes, employment increased for Producers and Directors, Agents and Managers, and Artists. At least two dynamics may account for why these groups fared better. The first is the substitution of workers from striking occupations into non-striking ones. Hollywood is famous for its “dual threat” or even “triple threat” talent—think “Writer/ Producer” or “Actor/ Director.” A shortage of work for Writers and Actors may have led these workers to shift into occupations less subject to the strikes’ effects. Interview respondents confirmed that studios pursued non-traditional staffing arrangements during the strikes, such as recruiting authors for script development. Similarly, a shortage of acting talent may have led to an increase in demand for visual effects and animation services for some productions. A live actor is often less expensive than a computer generated one, but this is not the case when most live actors are not available.

There also appears to have been growth in other areas that were less exposed to the strike. Podcasting, live theater, commercial production, and the influencer economy did not have to suspend operations and, quite the opposite, may have benefited from an influx of new, striking workers. This sort of shift may have helped to keep Agents and Managers busy, or in some cases, expand operations.

One assistant at a major Hollywood talent agency explained how activities within their firm pivoted from traditional production to commercials and content creation, which may represent a permanent shift. “I’ve seen an uptick in podcast development,” they said, noting that studios and production companies were seeking cheaper productions they could own, with a particular interest in crime thrillers and historical podcasts.

Analysis of job postings data provides an alternate view of how the Greater Los Angeles labor market performed during the strikes. Posting data—which tracks hiring activity—is published by Lightcast, a company that tracks job postings by industry and occupation. In the current study, this data is particularly valuable because it enables us to track hiring activity for non-production related occupations within the Entertainment Industry specifically. Government surveys do not allow this perspective.

The research team analyzed job postings for occupations listed as part of the Entertainment Industry, to detect recent hiring dynamics across different roles within the Industry. The data reveals significant disparities in job openings among these occupations. In particular, the data shows a pronounced split in hiring between, on the one hand, production and, on the other hand, business support and administrative-related occupations. Job openings declined for Actors, Writers, Camera Operators, and Production Designers, as well as for other occupations that are a part of the cast and crew, although these declines did not begin until August of this year. The lag between the beginning of the strikes and the drop in job openings may indicate an end to any optimism that the strikes would be short in duration. Sales occupations, including Sales Managers and Sales Representatives, saw steep declines over a longer period during the strikes, suggesting that the distribution side of the Entertainment Industry was relatively unaffected by the strikes.





Job postings increased in several corporate functions, such as Management, Administrative, and Advertising occupations. This uptick could reflect growth in non-scripted areas of the Industry, for non-striking occupations. In four occupational categories—Physical and Retail Services, Administrative Services, Legal Services, and Financial Services—there was no discernible change in the level of job openings during the strike period. Ultimately, the job postings data reveals that the Entertainment Industry is comprised of many jobs outside of production, and that these roles were not as affected during the strikes.

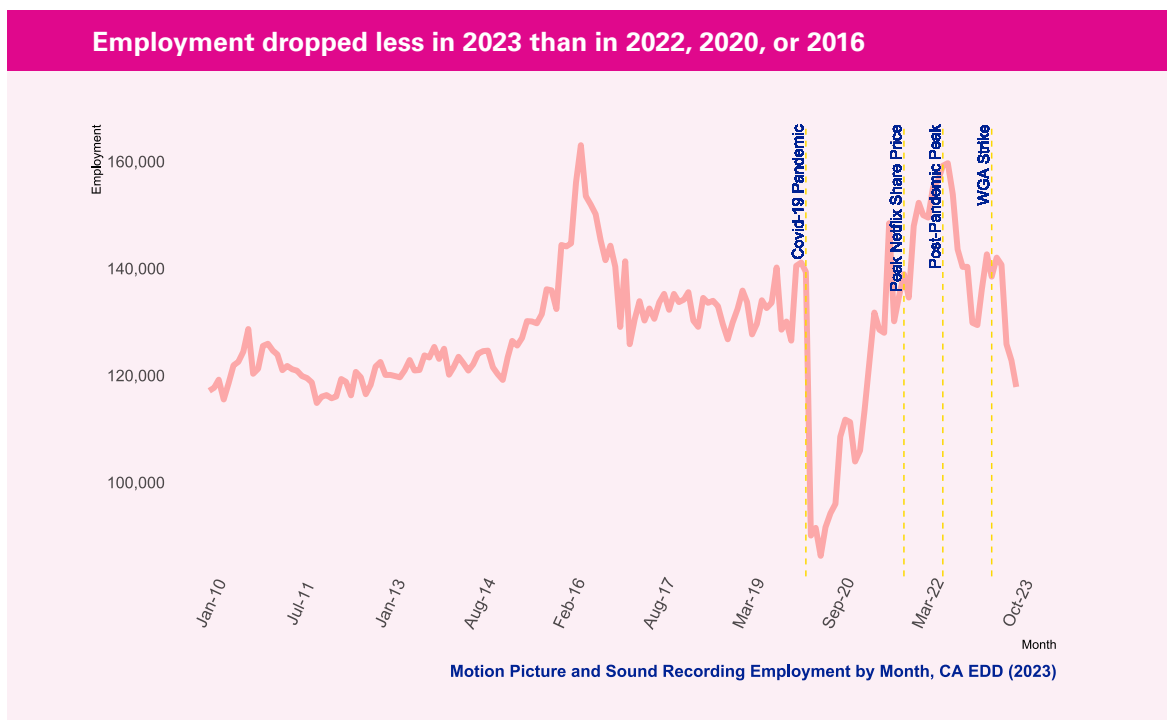
## PART 2

# The Long-Term Transformation of the Entertainment Industry

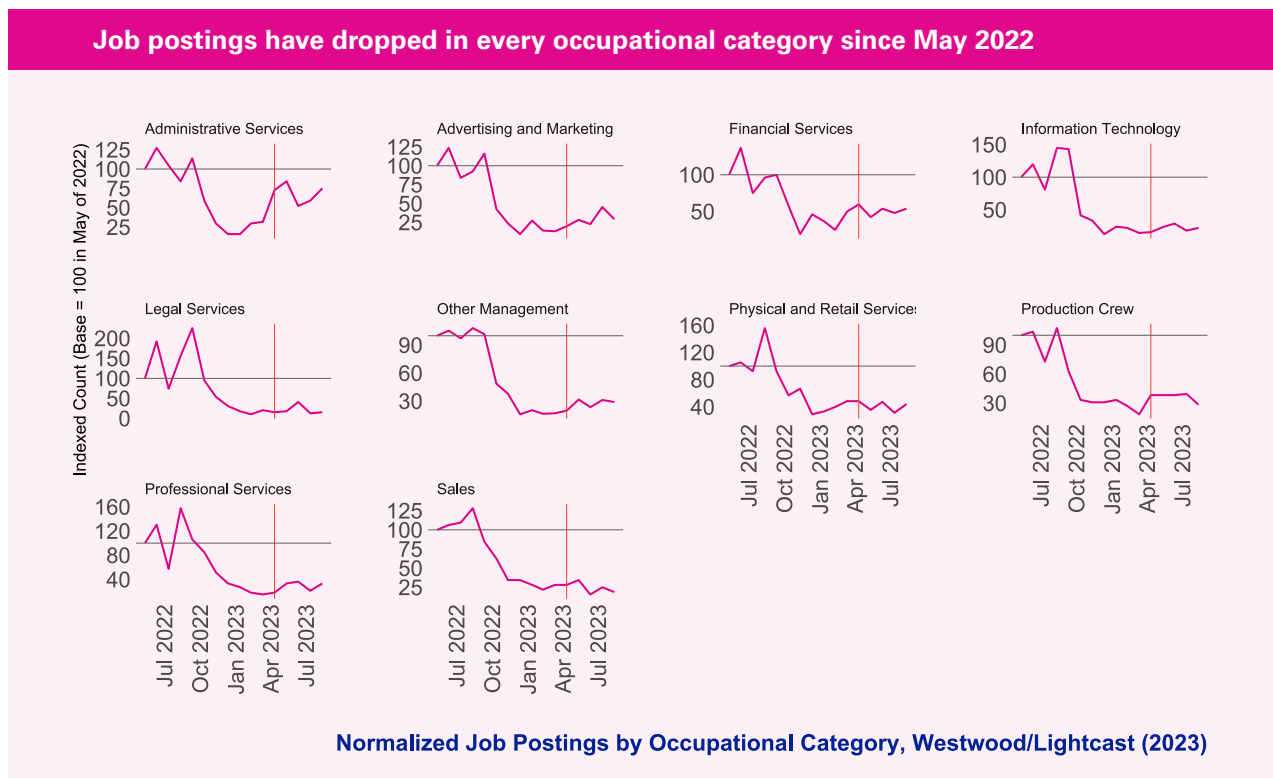
### Structural changes in the Industry will have a more significant impact than the strikes

We now place the events of the past few months within a wider context. This is important, now that the strikes have ended, and it enables us to focus on the underlying dynamics shaping the Industry. The figure below illustrates Entertainment Industry employment in Los Angeles County from 2010 through the most recent strike period. The 17% drop in employment during the strikes is notable in any context, but Hollywood has seen steeper or similar drops in employment on three separate occasions over the last 10 years:

- Employment fell by more than 20% between May 2016 and January 2017, as theatrical sales faced their worst crisis since the 1920s.
- The COVID-19 pandemic led to a 43% drop in Industry employment between February and April 2020.
- Entertainment Industry employment dropped 17% between August 2022 and January 2023, before recovering slightly immediately before the strikes.



Perhaps more worrying than the short-term impact of the strikes is the significant drop in Industry employment that unfolded following the post-pandemic peak, which occurred in August 2022. Compared to this peak, employment in the Industry had fallen by 26% in October 2023—a loss of just over one in four jobs in the Industry. These trends are confirmed by job posting data over the past 15 months. Over this time, there has been a significant slowdown in job postings for all major occupations within the Industry. While the number of job postings during the strike period (after the red line in the figures below) show divergence by occupation, the longer-term trend is uniformly negative.



## Peak TV may be contributing to a valley of unemployment

The overwhelming takeaway from interviews with Industry representatives is that, rather than being the cause of Hollywood’s current crisis, the strikes are a consequence of a crisis facing the Industry’s current business model.

In 2015, FX President John Landgraf coined the phrase “PeakTV,” and more recently proclaimed that 2022 was destined to become the “high watermark” for scripted television production. If Landgraf is correct, then the number of employees working in the Industry may have peaked, also. It would appear to be no coincidence, then, that peak Industry employment coincides with this date. A detailed analysis by Westwood reveals that there is a strong relationship between shooting activity and Industry employment. From 2016 to 2023, change in shooting activity accounts for 26% of the change seen in the number of people employed in the Industry.

Why do observers like Landgraf suggest that we have hit PeakTV? Part of the answer is the competitive landscape, which has grown more congested over the past five years. Netflix, founded in 2007, was a pioneer of the streaming model, overcoming early technological obstacles to acquire a quarter of a billion subscribers globally. The platform has been able to enjoy its role as the dominant “over the top” service in the United States. By 2019, the company’s success had inspired the entry of a new generation of services, backed by the country’s biggest technology and media companies. These platforms include Disney+, launched in 2019, AppleTV+ in 2019, Paramount+ in 2021, HBO Max in 2020, and Discovery+ in 2021 (the latter two of which merged to become Max in 2023). The ramp-up in production prior to the launch of these services heralded a golden era with respect to the quantity of content creation. As a production member put it, this led to a glut of work in the industry prior to the pandemic:

“When Apple, Amazon, Netflix first came in, there was a content boom ... So we had this explosion of work, the budgets went up, the schedules were extended ... Drama series used to shoot in eight days. All of a sudden, it was 15 days for the main part of the episode and then maybe 50 days of action shooting. So streaming upended everything ... The spending was just so crazy. And they were making so much stuff that you could work an entire year. Whereas it used to be after a movie ended, I’d be unemployed for a period and go on unemployment.”

This glut of production had the potential to create an oversupply of content itself, but history has shown that 2019 was also a particularly inauspicious time to launch a streaming service. The pandemic initially ground production to a halt in 2020, slowing the ability of streamers to create new content for their platforms. Concurrently, global box office receipts were shredded as cinemas closed across the world. In some instances, the release of high budget feature films was delayed; in others, studios were unable to recoup anticipated returns on their investments.

In addition to these pandemic and production-related factors, the macro environment has changed investors' appetite for risk. Rising interest rates that began in 2022 have made corporate debt more expensive to finance. It also means investors have alternatives to riskier assets and demand greater financial discipline from firms. Paramount's share price is now more than 80% below its post pandemic peak, Warner Bros Discovery's share price is 60% below its 2022 highs, Disney's share price is more than 50% lower than it was in 2021, and Netflix's share price is a third lower than its 2021 high. For many of these companies, streaming services have been operating at a loss, and in response to investor signals, many streaming services have cut their production budgets.

There is a clear sentiment among industry insiders that the way streaming services were financed prior to the pandemic is unsustainable:

**“It turns out that having Wall Street write you a blank check for 10 years while you are creating a new business ... is not something that’s replicable, or Wall Street doesn’t seem to want to replicate that. So the rest of the streamers are sort of beholden to their shareholders to make money immediately in a way that Netflix was not. And I think, because of that we’re going to see a contraction in the amount of stuff made.”**

In early November, Disney announced that its streaming service lost nearly \$400 million in the third quarter of 2023. This was down from a loss of \$1.41 billion in the prior quarter. Losses narrowed due to an increase in subscription prices and a cut in the company's production budget. To help stem losses, Disney has also added ad-supported content. To manage costs and raise revenue, Netflix has clamped down on password sharing and introduced an ad-supported tier of its own. In short, the era of peak production, in which platforms lost billions of dollars in a race to attract subscribers, has, at least for now, come to an end. As multiple industry experts have shared, the current environment requires that industry math add up much better than it has in the past. According to one interviewee:

**“It does not make sense to make 650 shows a year... you can't get enough eyeballs on those things. You can't market them effectively. And they cost you money. I think as far as television is concerned, it's just finally the financial pressures between the streaming model maturing and the fact that we don't have... zero interest rates, money's expensive.”**

While another sees things similarly.

**“The peak television, I think, came more from an effort to sell streaming services ... The whole streaming wars idea was all about who can get the monopoly, right? Who is going to be the last streamer standing? This idea of chasing after a monopoly led to a massive increase in trying to put out all this exclusive media ... places to get everyone's attention. But it was never going to be commercially solvent ... just adding and adding and adding, but also having to keep prices competitive, something was always going to break.”**

The net effect of this austerity has been industry contraction, as companies adjust their business models to support their streaming services. There is a widespread perception that this downturn will continue even after the strikes. A production assistant puts things succinctly:

**“Regardless of the strikes, we were destined to go into a kind of contraction, certainly in the TV space, and very likely in the feature space too.”**

It is very likely, in the immediate post-strike period, that there will be a dramatic uptick in hiring to a level that is significantly above the 2023 average. Production workers who have mostly been on the sidelines of the industry will return to employment. What is less certain is whether the same number of projects will be developed, or (in the case of television) the number of episode orders will match pre-strike levels. Given competitive pressures, the harsh macro-environment, and the strikes themselves—which saw increased labor costs—it would be difficult to bet on a return to 2022 levels of production or employment.

## **Artificial intelligence is a looming employment threat across the entertainment industry**

The specter of Artificial Intelligence (AI) was at the center of the WGA and SAG-AFTRA strikes. For writers, there are concerns about the ability of AI to write scripts, while actors are concerned about both the use of their image without their consent and AI’s ability to reduce their presence on set. For the most part, interviewees were more sanguine about how AI will impact writers, at least in the short run. By contrast, respondents were less optimistic about how AI might shape the craft of actors.

With respect to actors, industry representatives are replete with stories of AI representing a continuation of trends that have been in place since the advent of computer-generated imagery, when computer images increasingly replaced actors on set. A visual effects artist described how digital image creation has been part of their work for years.

**“When actors say, ‘Oh, they’re gonna take my likeness, and put me in whatever movie they want,’ I can tell you from a producer’s point of view, they don’t want to do that because it’s going to be incredibly expensive. You’re much better off hiring a couple hundred background extras for the day than to have a visual effects company create from scratch this crowd of people and put them into 30 or 40 shots.”**

Overall, there’s a clear sentiment that, in an industry in which opportunities for actors to earn a living are limited, AI will make things harder by reducing many “entry level opportunities,” and ultimately the number of long-term careers that workers are able to forge in the industry. With respect to writing, many see AI as a useful tool, at present, rather than a substitute for writers. AI’s core strength lies in its ability to process enormous amounts of information, detect patterns, and generate insights from them in an instant. While these features certainly have value, particularly with respect to research, many question AI’s ability to generate creative stories that do not seem formulaic, imitate how humans interact, how they love, and the ability of AI to imbue scripts with warmth and compassion. A WGA member sums this up:

**“There’s empathy, there’s compassion, there are a lot of things that AI does not have.”**

Furthermore, in the short-term, AI requires significant human oversight. And while it has the potential to replace more routine aspects of the industry, any product that AI creates must be reviewed, edited, and embellished. All of these factors will require human involvement.

There are early indications that Large Language Models and other machine learning applications may be shrinking demand for office-based jobs in the wider entertainment industry. The table below outlines significant entertainment industry skills that saw the steepest job posting decline between summer 2022 and summer 2023, an interval that also coincides with the release of Chat GPT. Functions that can be assisted by machine learning—especially computer programming and workflow—have seen notable declines.



Skill	Total Percentage	2022 Percentage	2023 Percentage	Percentage Change
Operations	1.21%	1.25%	1.12%	-0.14%
Computer Science	0.63%	0.66%	0.45%	-0.21%
Workflow Management	0.63%	0.67%	0.46%	-0.21%
Troubleshooting (Problem Solving)	0.56%	0.57%	0.48%	-0.09%
Enthusiasm	0.39%	0.40%	0.30%	-0.09%
Software Engineering	0.35%	0.37%	0.22%	-0.16%
Amazon Web Services	0.32%	0.34%	0.22%	-0.12%
Software Development	0.28%	0.33%	0.16%	-0.16%
Java (Programming Language)	0.23%	0.26%	0.15%	-0.11%
Product Management	0.21%	0.26%	0.10%	-0.16%

On the other hand, soft skills, including Communications, Leadership, Attention to Detail, and Customer Service, have seen increased demand, as have financial skills.

It is too early to predict the extent to which AI and machine learning tools might dislocate workers in the industry. These tools will doubtless replace some jobs, while also creating new ones. Yet, in an environment where cost-cutting and streamlining appears to be paramount, the balance of forces points in the direction of employment dislocation in the short-term.

In subsequent bulletins, the project team will explore these topics in more depth, as well as other issues shaping the industry.

## Notes

<sup>1</sup>Data coverage varies somewhat by source and so do underlying geographies. Industry/EDD data applies to L.A. County, job postings data applies to L.A. and Orange Counties and Occupational/CPS data applies to the state of California but is overwhelmingly composed of L.A. County entertainment workers.

<sup>2</sup>The Sound Recording portion of the Industry accounted for only 3% of Motion Picture employment in Greater Los Angeles in 2022 and does not drive the industry trend, especially in this period.

<sup>3</sup>Lightcast labels the Entertainment Industry “Motion Picture and Sound.”

## Byline

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All interview respondents agreed to be quoted anonymously. The research team thanks them for their candid feedback.

## About Otis College of Art and Design

Established in 1918 as Los Angeles’s first professional school of the arts, Otis College of Art and Design is a non-profit 501(c)3 institution and a national leader in art and design education. The College educates a diverse community of 1,300 creative students to become highly skilled, well-informed, and responsible professionals—empowering them to shape the world. Alumni and faculty are Fulbright, MacArthur, and Guggenheim grant recipients, Oscar winners, legendary costume designers, leaders of contemporary art movements, entrepreneurs, and design stars at influential companies including Apple, Abercrombie & Fitch, Pixar, DreamWorks, Mattel, Nike, and Netflix.