

The Inexact Science of Box Office Projections

Opening-weekend estimates have been a Hollywood fixture since the 1980s. But surveys of moviegoers can fail to capture those who infrequently visit the theater.



By Reggie Ugwu

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Savvy moviegoers may have noticed that these are very uncertain times at the box office. Not only are ticket sales this summer down about 17 percent compared to last year, according to Comscore, but it seems challenging to anticipate what will hit and what will flop.

The domestic opening-weekend totals for would-be tent poles “The Fall Guy” and “Furiosa: A Mad Max Saga” came in lower than expected, while “A Quiet Place: Day One” and last weekend’s “Twisters” far exceeded their estimates.

So how do Hollywood studios and their analysts make these predictions? And what explains why they fail?

Box office projections, typically derived from more general audience sentiment data known as “tracking,” have been a fixture of the industry since the 1980s. The idea that studios should know in advance how a film will perform — down to a

specific dollar figure — was promoted by the Coca-Cola Company, which bought Columbia Pictures in 1982 and thought it should be run more like a conventional maker of consumer products.

“They were used to certain metrics of units sold,” said Kevin Goetz, the founder and chief executive of the analytics firm Screen Engine/ASI and the author of “Audience-ology.” “They pushed the National Research Group to come up with an estimate figure for their movies, and thus began what is essentially a parlor game of predictions.”

How Does Tracking Work?

To get a dollar estimate for a given movie, tracking companies poll prospective audience members weeks or even months in advance. Their questions are designed to gauge three metrics: awareness, interest and choice, meaning where the film ranks among others the respondent is interested in seeing.



Prospective audience members are surveyed about their interest in upcoming movies weeks or months in advance. Brandon Bell/Getty Images

Tracking is at its core a marketing tool, and tracking companies seek data from a wide range of demographics — women, men, over 30, under 30 and various ethnic groups and regions, for example. Most partner with survey companies that vet the respondents.

“There are good survey takers and bad survey takers,” said David Herrin, founder of the tracking company The Quorum, who compared “bad” survey takers to those who pick “A” for every answer on the SAT. “You pay to weed out the bad ones.”

Once the surveys have been completed, the tracking company compares the results to those of similar films from the past. The highest- and lowest-performing comparisons set the general range for box office gross. Context-specific factors — an unusual premise, a buzzy movie star — are used to place a film within the higher or lower end of that range.

Why Does Tracking Matter?

The essential function of tracking is to gauge the effectiveness of a studio’s marketing campaign. If a movie is polling well, then the studio can feel confident that the marketing materials are working and may choose to increase its budget to maximize the box office potential. If a movie is tracking poorly, on the other hand, the studio has a chance to recalibrate the campaign, or cut its losses.

Other players in the film business have also come to rely on tracking, including talent agencies and theater owners.

“If you’re an agency and you have an actor in a movie that looks like it’s going to bomb, maybe you try and lock down their next few projects before it comes out,” Herrin said. “Or, if you’re an exhibitor and you know you’ve got a ‘Barbie’ coming, you might bump it up from playing on two screens to six.”

Why Does Tracking Fail?

Sometimes consumer surveys don't capture the full universe of people who will end up buying a ticket. "Twisters" was widely projected to make between \$45 million and \$50 million domestically on opening weekend and ultimately made \$81 million. Goetz said such a performance suggested that a movie has tapped into an audience beyond the typical moviegoer.

"People who don't usually go to the movies are coming out for it," he said, suggesting that another such film might be Marvel's upcoming "Deadpool & Wolverine." It is currently projected to open at more than \$150 million, which would be the highest domestic opening weekend ever for an R-rated movie, not adjusted for inflation.

"If you're the type of person who is only going to see two to three movies a year," he said, "and this is the movie you choose, surveys aren't going to capture that."



"Twisters" made \$81 million domestically on its opening weekend, about 60 percent more than projected. Universal Pictures

Another factor is word of mouth. As critics and audiences weigh in on a film after it opens, positive reviews can push a movie above its projections, while negative ones can drag it under.

Sometimes, the data itself is misinterpreted or ignored. Herrin said some forecasts for “Furiosa” might have overvalued its pedigree (the franchise’s previous film, “Mad Max: Fury Road,” was widely hailed as a masterpiece) and downplayed clear signs of weak audience demand. Projected by some to bring in \$40 million over Memorial Day weekend, it ended up with just \$32 million.

“Sometimes people make interpretations of how a movie is going to perform without actually looking at the data,” he said. “Outside of any other forces telling you something’s going to work, you have to look at what the numbers say.”

Reggie Ugwu is a Times culture reporter. More about Reggie Ugwu

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