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IS INCLUSION A BOX OFFICE BOOST?

How much does inclusion influence a film's financial performance? A new study sheds light on the factors that make money and what matters most.

LOS ANGELES January X, 2020. As Hollywood tallies its year-end totals and looks toward Oscar hopefuls, a new study offers insight into how gender and race/ethnicity of the lead/co-lead character is related to economic success.

The report entitled “The Ticket to Inclusion,” was commissioned by [ReFrame](#), a collaboration between [Sundance Institute](#) and [Women In Film](#), and is authored by [Professor Stacy L. Smith](#) and the [Annenberg Inclusion Initiative](#) at USC’s Annenberg School for Communication and Journalism, and from [Professor René Weber](#) and the [Media Neuroscience Lab](#) at UCSB’s Department of Communication. The study was co-funded by ReFrame and the Annenberg Inclusion Initiative and examines the economic performance of 1,200 top films from 2007 to 2018.

Many industry decision-makers base hiring, financing and production choices on the belief that films with female leads/co leads and those from underrepresented racial/ethnic groups earn less money than films with male or white leads/co leads at the box office both domestically and internationally. But in accepting this myth as truth, they ignore that these same films also receive lower median production budgets, less median marketing support in dollars, and are distributed in fewer median theaters than films with male or white leads/co leads. This research asks whether it is the gender and race/ethnicity of leading/co leading characters and/or the support these films receive that contributes to differences in box office revenue.

The study reveals that when controlling for a set of production, distribution, and exhibition factors, films with female lead or co-lead characters do not perform significantly differently than those with male lead characters domestically and internationally. The story for underrepresented leads and co-leads is more nuanced; domestically and internationally, these films were significantly more likely to out earn films with white leads and co-leads. However, a significant interaction between the percentage of underrepresented cast and lead/co-lead character race/ethnicity offers preliminary evidence that films with a large percentage of underrepresented characters with a white lead/co-lead are less successful than those with a large percentage of underrepresented characters and an underrepresented lead/co-lead character.

The study applied sophisticated statistical controls and path modeling to answer this query, going beyond the limited simple analyses employed in other research. The authors examined more than a dozen production, distribution, and exhibition factors that could influence economic performance domestically and internationally. Along with these indicators, the lead/co lead character’s gender or race/ethnicity as well as the percentage of cast that was female or from an underrepresented racial/ethnic group were included in the models.

The findings showed that domestically, the strongest predictors of economic success were the number of theaters in which a movie was released, story strength (as measured by Metacritic), marketing spend, and

production costs. As these factors increased, so did revenue. Films with female leads/co-leads were not associated with greater earnings than those with male leads/co-leads. Additionally, the presence of an underrepresented lead/co lead was a significant and positive predictor of performance. Simply put, films with leads/co leads from underrepresented groups earned more revenue when other influences were accounted for in the model. A weaker, but still significant predictor of success was the percentage of female characters in a film.

“This study confirms our previous work indicating that the gender of the lead/co-lead character is not a significant predictor of box office performance,” said Dr. Smith. “Rather, it is other factors that are within the control of executives—production costs, promotion, distribution density, and the story itself that play a key role in a movie’s success. Moreover, films with leading/co-leading characters from underrepresented racial/ethnic backgrounds are a significant and notable predictor of economic revenue domestically. This is a finding that cannot be ignored and is consistent with what activists, advocates and artists have been saying for years. Stories with underrepresented leads/co-leads make money. Period.”

ReFrame co-founders Cathy Schulman and Keri Putnam added, “Now that scientists have worked diligently to compare box office performance by adjusting for multiple economic and strategic variables, the industry should be mindful to model films without relying upon unfounded predictors. The research allows for a more nuanced understanding of the factors that relate to economic performance and demonstrate that the beliefs about gender and race that have been used to guide industry practices do not hold up to scrutiny.”

Alison Emilio, Director of ReFrame, added a call to action, “We call on the industry to level the playing field by providing the same production and marketing support to all films (of similar genre) without regard to gender or race/ethnicity #leveltheplayingfield.”

The findings regarding international revenue were more complex. Here, production costs, international marketing, whether a film was released in China, the number of international territories in which a film was released, and story strength were the strongest positive predictors of success. Having a cast with a higher percentage of females positively influenced revenue, while a greater proportion of characters from underrepresented racial/ethnic groups was associated with a decrease in earnings. However, the gender or race/ethnicity of the lead/co lead character did not significantly predict earnings.

“These results contradict longstanding beliefs about the economic viability of underrepresented leads overseas,” said Dr. Smith. “Instead, the findings demonstrate that bias and exclusionary production and marketing practices are driving decision-making about leading roles rather than data regarding return on investment.”

The finding regarding underrepresented characters and international revenue prompted further scrutiny. The researchers examined the interaction between underrepresented characters and leads/co-leads to understand their unique and combined impact on international financial performance. The results demonstrated that films with a high proportion of underrepresented characters (81% or more) in stories with an underrepresented lead/co-lead were associated with the greatest international revenue. In contrast, films with a high proportion of underrepresented characters (81% or more) but with only white leads/co-leads were associated with the lowest international revenue. The researchers indicate that this finding suggests audiences respond positively to authentic storytelling about diverse communities, and are less inclined toward inauthentic films. However, due to the small sample sizes of both of these types of films, further analyses are needed and this interaction should be interpreted with caution.

“The in-depth analysis of this unique dataset enabled us to better understand the factors that truly explain the economic success of films,” said Dr. Weber. “In addition to the impact of inclusion variables we have learned that a good story still plays a major role in a film’s financial success and that factors such as animation as a storytelling style indirectly increase financial performance through stronger stories. Interestingly, our analyses show that star power exerts no significant influence in the U.S. and on

international receipts. What exactly are the driving ingredients of a good story is the goal of our ongoing projects. Decision-makers can utilize these findings to understand how best to position their movies for success.”

Few films each year feature women of color in leading roles, which required the researchers to explore the success of movies about underrepresented females in a different way. In a supplementary report, the authors take aim at how films with underrepresented female leads were supported in comparison to those starring white females, underrepresented males, and white males. Using sample of 817 live action films with solo leading characters, the analysis explored the production, marketing, and release of films starring women of color. The results demonstrate that these movies receive the least amount of support across all groups.

Films starring women of color received the lowest funds in terms of median production costs and median marketing spend (domestic or international). These movies were also distributed in fewer median international territories than films with white female, underrepresented male, or white male leads. Only 3 films with a solo underrepresented female lead were released in China across the 12 years studied, whereas 48 starring white females, 24 featuring underrepresented males, and 174 with white male leads were shown there. The number of movies with underrepresented female leads distributed in Japan, South Korea, and India were equally problematic. Films starring underrepresented female leads were also far less likely to be action films. Of the 167 action movies in the sample, 128 had white male leads, 27 had underrepresented male leads, 10 had white female leads, and only 2 featured women of color as leads.

“Films with women of color as the lead are not only the least likely to be released, but the least likely to be supported by producers and distributors,” said Dr. Smith. “We know the factors that increase the likelihood that a film will be financially successful, and movies with women of color in the lead are systematically disadvantaged in these areas. We need studios to change the way they do business when it comes to supporting these films.”

Schulman and Putnam announced, “ReFrame, committed to actionable solutions, will expand its 14 point roadmap for mitigating bias to include recommended changes to finance models based on the findings of this study, so that studios and production companies do not inadvertently underfund movies and shows based on mythological presumptions.”

The authors note that the study, while offering a comprehensive look at the factors that drive the economic performance of films, is limited to the movies included in the sample and does not account for other variables that were not measured or included. For that reason, the authors caution against generalizing the findings to films outside the sample.

The study is the latest from the Annenberg Inclusion Initiative, which previously partnered with Women in Film and the Sundance Institute to conduct three studies examining the barriers facing female filmmakers. The full report can be found [here](#).

About the USC Annenberg Inclusion Initiative

Launched more than 10 years ago by Dr. Stacy L. Smith, the Initiative is globally recognized for its valuable and sought-after researched solutions to advance equality in entertainment. Dr. Smith and the Annenberg Inclusion Initiative examine gender, race/ethnicity, LGBT status, disability, and age on screen and gender and race/ethnicity behind the camera in cinematic and television content, as well as barriers and opportunities facing women and people of color in the entertainment industry. The Annenberg Inclusion Initiative also conducts economic analyses related to diversity and the financial performance of films. In 2015, *LA Weekly* named Dr. Smith the #1 Most Influential Person in Los Angeles, and she has

spoken at multiple high-profile engagements ranging from the TED Women stage to the United Nations. Dr. Smith and the Annenberg Inclusion Initiative have been featured in *The New York Times*, *Los Angeles Times*, *The Atlantic*, *Newsweek*, *The Hollywood Reporter*, *Variety*, and *NPR*, among others. The Annenberg Inclusion Initiative's research reports include the Comprehensive Annenberg Report on Diversity (CARD), multiple landmark studies with Sundance Institute and Women in Film Los Angeles, and their yearly investigation of on-screen and behind-the-camera roles across 1,200 top-grossing films. The Annenberg Inclusion Initiative is generously supported by The Annenberg Foundation, The Harnisch Foundation, The David and Lura Lovell Foundation, Sony Pictures Entertainment, Universal Music Group, The Jacquelyn and Gregory Zehner Foundation, and other individuals. To learn more, visit <http://annenberg.usc.edu/aii> or follow on [Twitter](#), [Instagram](#), or on [Facebook](#). The Annenberg Inclusion Initiative is located at the [University of Southern California](#), at the [Annenberg School for Communication and Journalism](#).

About the UCSB Media Neuroscience Lab

Founded in 2012 by Dr. René Weber, the UCSB Media Neuroscience Lab encourages collaboration among communication scholars, media professionals, and cognitive scientists to build a richer understanding of media-related research questions and methods. The lab is well-known in both academia and in the media industry for its innovative contributions to theorizing and data analysis. Among many projects, Dr. Weber and his team investigate moral conflict pattern in stories, how these pattern are intertwined with different types and networks of story characters, and how these narrative ingredients are related to story appeal in diverse audiences. Dr. Weber is professor of mass communication and cognitive science in the Department of Communication at UC Santa Barbara. He has earned both a Ph.D. in Media Psychology and an M.D. in Psychiatry and Cognitive Neuroscience. His general research agenda focuses on cognitive responses to content in traditional and new technology media. He develops social scientific, statistical, and neuroscientific methodology for the rigorous test of media related theories and practices. He has published more than 125 journal articles and book chapters and has written 3 books. He is a Fellow of the International Communication Association (ICA) and past chair of ICA's Mass Communication Division and ICA's Communication Science and Biology Interest Group. The UCSB Media Neuroscience Lab is supported by the US Army Research Lab, the John Templeton Foundation, the National Science Foundation, and other organizations and individuals. The Media Neuroscience Lab is located at the [University of California Santa Barbara](#), at the [Department of Communication](#). To learn more, visit <https://medianeuroscience.org> or follow [@MediaNeuro](#) on Twitter.

About ReFrame

Founded and led by Women In Film and Sundance Institute, ReFrame is an initiative that employs a unique strategy, a peer-to-peer approach, in which [ReFrame Ambassadors](#) engage with senior industry decision-makers at over 50 Partner Companies to implement ReFrame programs. The initiative's goals are to provide research, support, and a practical framework that can be used by Partner companies to mitigate bias during the creative decision-making and hiring process, celebrate successes, and measure progress toward a more gender-representative industry on all levels. For more information download the [ReFrame Culture Change Handbook](#) or visit [ReFrameProject.org](#).

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