

DRIVING BOX OFFICE PERFORMANCE THROUGH AUTHENTICALLY INCLUSIVE STORYTELLING



AN ANALYSIS OF THE TOP MOVIES OVER TEN YEARS (2010 - 2019)

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INTRODUCTION

(1/2)



In 2020, the Center for Scholars & Storytellers (CSS) at UCLA released the Authentically Inclusive Representation (AIR) Report, which found that large budget films lost up to \$32M opening weekend when they lacked authentically inclusive representation. This report received major press attention (e.g., The Hollywood Reporter, The Hill, NPR, and Deadline). Gaining media and industry attention is an important first step. However, the ultimate aim of this work is to highlight trends that are impossible to ignore with the goal of facilitating real tangible change both on and off screen within the entertainment industry. In the years since the report's release, CSS furthered its impact by conducting diversity, equity, inclusion, and access (DEIA) workshops with major studios, holding its first annual Summit of industry thought leaders, and supporting companies in auditing their own content.

UP TO
\$32
MILLION

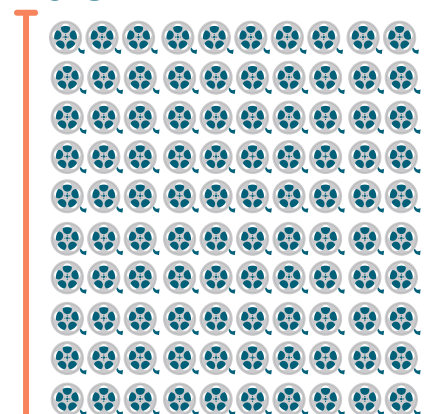
LOST IN THE
OPENING WEEKEND
BOX OFFICE WHEN
LARGE BUDGET
FILMS "LACK AIR"

AIR
Authentically
Inclusive
Representation

★ **TOP**
100
MOVIES

OVER THE LAST
10 YEARS

2019



2010

The ultimate aim of this work is to highlight trends that are impossible to ignore with the goal of facilitating real tangible change both on and off screen within the entertainment industry.



INTRODUCTION

(2/2)



In 2021, we partnered with the leading talent and sports agency Creative Artists Agency (CAA) and the Full Story Initiative to further define and assess the trends we saw in our AIR report. Our goal was to:

1. Replicate our findings with a large objective dataset
2. Look at trends over time
3. Determine if AIR storytelling (e.g., independent of who is in front of and behind the camera) is related to box office performance
4. Expand our lens to examine representation of a greater number of marginalized groups
5. Leverage the expertise of cultural organizations

Our findings, along with prior research, make it crystal clear that achieving AIR is an industry imperative from both a financial and moral perspective.



Yalda T. Uhls, Ph.D.
& Lee Lazar, C.Phil.



The [Center for Scholars & Storytellers \(CSS\)](#), at UCLA, collaborates with leading scientists to provide research-based insights for content creators crafting authentic and inclusive stories. We develop our resources and tools including tip sheets, workshops, and original research in collaboration with the end-users, media and tech companies. Our research and tools have been featured in [The New York Times](#), [Deadline](#), [IndieWire](#), and [more](#). To learn more about our impact, read our [2021 year in review](#).



MESSAGE FROM CAA

(1/2)

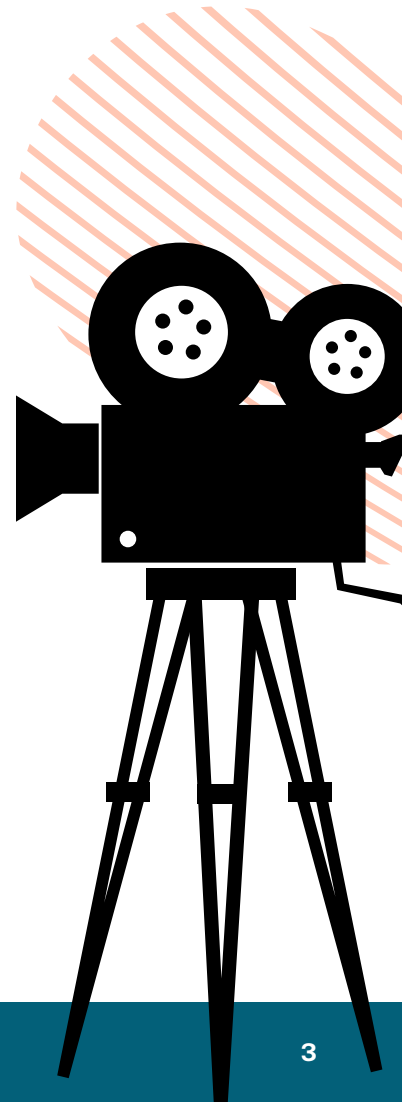
CAA creates opportunities for world-class artists who help shape the cultural landscape. We are also committed to using our position at the intersection of creative industries to drive social change through popular culture and to promote the value of inclusion across entertainment.

The Full Story Initiative (FSI) is an important part of these efforts. Through FSI, we connect creative and industry colleagues with issue-area and community experts, helping to build more authentic and accurate narratives across film and television.

Establishing meaningful partnerships with like-minded leaders and organizations who share in our mission is integral to the success of FSI, and we are thrilled to count UCLA Center for Scholars & Storytellers (CSS) as one of these partners.

With this joint study, we expanded on CSS' existing research by looking to the expertise and lived experiences of our FSI network including 1in4 Coalition, CAPE (Coalition of Asian Pacifics in Entertainment), Color of Change, Define American, Geena Davis Institute, GLAAD, IllumiNative, Muslim Public Affairs Council (MPAC), and the National Hispanic Media Coalition (NHMC) to help illustrate the true financial power of authentic and representative storytelling.

While we have seen some progress in representation on-screen, there is much more work to be done. Not only do we believe that the stories we see on-screen should be reflective of the world we live in, but we know that audiences - who are as diverse as ever - demand it.





MESSAGE FROM CAA

(2/2)



We recognize that transformational structural change is needed to ensure multicultural and multifaceted representation on creative and executive teams. It's a change that requires collective power and committed action.

This research and the industry-informed calls to action that follow are intended to encourage each of us to consider tangible steps that can be taken to ensure authentically inclusive representation in our businesses.

Thank you for reading.



From left to right:

Maha Dakhil, Co-Head Motion Pictures and Board Member, CAA
Maddy Roth, Full Story Initiative and Executive, CAA Foundation
Ruben Garcia, Co-Head Cultural Business Strategy, CAA

About FSI:

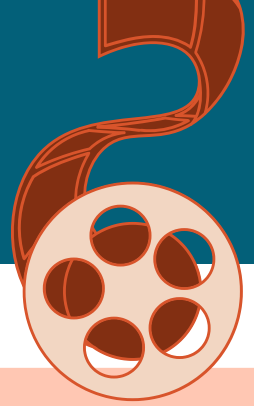
The [Full Story Initiative](#) is an entertainment industry-facing effort incubated by the CAA Foundation, the philanthropic arm of the leading talent and sports agency [Creative Artists Agency \(CAA\)](#), designed to generate more authentic, inclusive, and equitable storytelling in television and film. The Full Story Initiative achieves this by creating a centralized system where writers, directors, producers, showrunners, and executives can meaningfully engage with issue-area experts and community leaders to help inform their work. The initiative also provides resources for creators including event-based programming, research, and story ideas, in addition to a specialized [toolkit](#) developed in partnership with leading nonprofit organizations that can be a useful reference throughout their development process.





PROJECT OVERVIEW

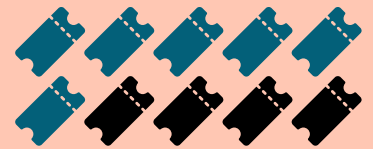
(1/2)



In partnership with Creative Artists Agency (CAA) and the Full Story Initiative (FSI) within the CAA Foundation, we analyzed the top 100 films of the last 10 years (based on domestic box office earnings for each year: 1,000 films total) to further explore whether authentically inclusive representation (AIR) in character portrayals and storylines can affect the success of a film (financially and critically), particularly when considering factors like production budget. We first leveraged machine learning tags that classified a film as relevant to marginalized communities or not (e.g., LGBTQ+, African American, etc.) Out of the 1,000 films, 257 films were classified with at least one of these tags related to marginalized communities.



In **2021**, **people of color** accounted for the majority of domestic ticket sales for **6 of the top 10 films**.



As for the **top 10 films** released via streaming platforms, households of color were overrepresented in their share of viewings.⁽¹⁾



In **2021**, *streaming films* featuring casts having higher historically marginalized representation (over **21%**) had the **highest ratings** among *White, Black, Latino, and Asian* households.⁽¹⁾



PROJECT OVERVIEW

(2/2)



We next contextualized the quality of the diverse storylines within the list of films. To do so, we partnered with FSI to rate these films (on a scale from 1 to 5) using a more complete definition of AIR based on:

1. Our original definition of AIR
2. Whether the film avoided harmful stereotypes/tropes
3. How well the film increased the complexity of a general audience's understanding of the culture or group they represented

We ran statistical analyses to determine whether the new AIR score was related to production budget, critic and audience ratings.

See page 7 for a list of key terms and page 19 for a more in-depth description of our method.



EXAMPLE RATING OF A FILM ★

Define American - Immigrants

The Big Sick
(AIR score = 5)

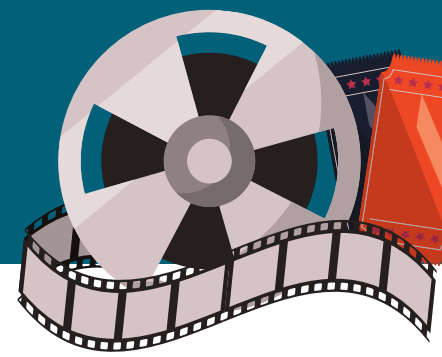
"This film is a fantastic example of how authentic storytellers with lived experiences yield authentic, nuanced, and rich stories."





KEY TERMS

(1/3)



» AIR 2.0

In the current project, we refined our original definition of AIR to include considerations of stereotypes and tropes along with increasing the complexity of a general audience's understanding of a culture or group. Our new AIR score was based off the 3 following components:

1. How well the film performed based on the original definition of authentic and inclusive representation (AIR)
2. The extent to which the film's story or character development avoided relying on problematic or harmful stereotypes/tropes
3. The extent to which the film's representation of characters' culture/group increased the complexity of a general audience's understanding of that culture/group

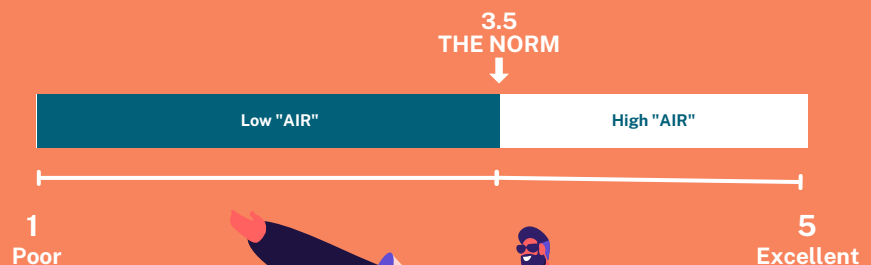


Organizations were asked to rate the films on a 5 star scale (1 poor – 5 excellent).

In our analysis, the ratings of each of the three components were highly aligned, and thus, we averaged across the three scores to create one total AIR rating per film.

We considered films whose score fell below 3.5 as having “Low AIR” and films that scored 3.5 or above as having “High AIR.” We chose 3.5 as the cut off score based on our initial AIR report.

AIR RATING SCALE





KEY TERMS

(2/3)

» STORYLINE TRAITS/TAGS

Mediahound, a software company which relies on a combination of machine learning and natural language processing, shared a broad list of character and storyline traits that our 1,000 films could be 'tagged' with, indicating that the film either contains that trait within their storyline or it does not. A 'storyline trait' is defined as a trait within the story such that if that trait were to be removed, the story itself would fundamentally alter. Examples of their storyline traits include Questioning Sexuality, Racism, Sexism, Abortion Rights, Animated, Race Relations, Racial Wealth Gap, and Physical Disability.

» FILM TAGGED WITH DIVERSITY METRIC

To determine whether a film was relevant to marginalized communities or not, we culled the large list of tags provided by Mediahound down to a group of 37 tags relevant to story-level representation of diverse communities. A 'diverse film' is thus a film tagged with at least one of these 37 storyline traits.

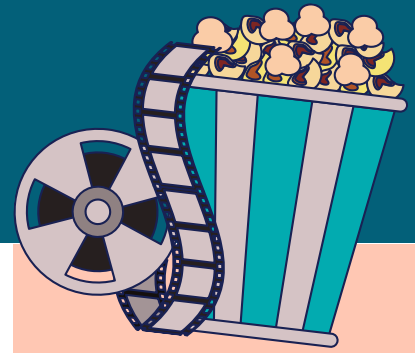
» RELEVANT FILM

A film deemed 'relevant' is a film confirmed by an FSI organization to contain within its storyline and/or character development aspects of their representative community that are integral to the story, regardless of whether or not that representation was positive or negative. In essence, a 'relevant' film has both been tagged by machine learning as having a storyline relevant to marginalized communities AND double checked to confirm the tag's accuracy by the FSI organizations.

(e.g., Were topics relevant to the Hispanic/Latino community relevant to the storyline? Are there Hispanic/Latino characters?)

» AIR RATED FILM

An AIR rated film is a film that was tagged by machine learning as having a storyline relevant to marginalized communities, further confirmed as a 'relevant' film by FSI, and then passed through an additional qualifier. 'AIR rated films' were further qualified by having a full rating from 1 to 5 on all three components of AIR (see definition above).



1,000 FILMS

MEDIAHOUND
USED TO TAG
MOVIES

257 FILMS
TAGGED WITH
DIVERSITY METRIC

FSI ORGS CHECK
& RATE FILMS

79 FILMS NOT
SEEN BY ORGS

42 FILMS RATED
NOT RELEVANT BY
PARTICIPATING
FSI ORGS

136 FILMS RATED
RELEVANT

101 AIR RATED
FILMS (I.E.
RELEVANT
AND FULLY
RATED BY FSI
GROUPS)



KEY TERMS

(3/3)

» SMALL, MEDIUM, AND LARGE BUDGET FILMS

- **Small Budget:** A film with a production budget less than or equal to \$15M
- **Medium Budget:** A film with a production budget between \$15-\$159M
- **Large Budget:** A film with a production budget greater than or equal to \$159M

» U.S. BOX OFFICE EARNINGS

First 3 Day, 7 Day, and Total.

» CRITIC REVIEWS

Reviews were collected from Metacritic, Rotten Tomatoes, and IMDB.

» AUDIENCE REVIEWS

Audience reviews were collected from Rotten Tomatoes.

"We were thrilled to consult on such a beloved and incredible project like COCO, and the film's worldwide success and Oscar wins confirm what the people of Mexico – and Latinx communities around the world – already know: that our stories matter, and the emotions a great story evoke are universal and timeless. COCO is a perfect example of how a story can be authentic, celebrate a community's culture, and touch the hearts of millions around the world. The NHMC is dedicated to pressuring studios throughout Hollywood to wake up, take notice, and ensure more stories like these are told."

- Brenda Castillo
President and CEO,
National Hispanic Media
Coalition (NHMC)

FSI Groups that Rated the Movies

(with corresponding AIR category)

- **1in4 Coalition** People with Disabilities
- **CAPE** Asian American and Pacific Islander
- **Color of Change** Black and/or African American
- **Define American** Immigrant
- **Geena Davis Institute** Gender Equity and Female Representation
- **GLAAD** LGBTQ+
- **IllumiNative** Native and Indigenous
- **MPAC** Middle Eastern and Muslim
- **NHMC** Hispanic and Latino





MAIN FINDINGS

#1

We found that for large budget films, scoring higher on AIR predicts significantly higher box office wins.

Why is this important?

This represents a large opportunity for four-quadrant films. By working to achieve AIR through casting, creative teams, AND storytelling, studio films should earn more at the box office.

#2

All films, regardless of production budgets, that were rated higher on AIR received more positive acclaim from critics and audience members.

Why is this important?

Audience ratings and critical reviews are related to box office earnings. This means it's likely that having a higher AIR is related to box office earnings for all budgeted movies, even if it didn't reach significance in our dataset.*

#3

From 2015 to 2019, films scored higher on AIR than in the previous five years.

Why is this important?

The work of advocates for authentically inclusive representation is making a difference.



*This finding did not reach statistical significance in our dataset in terms of relationship to box office earnings.



AIR RECOMMENDATIONS

(1/2)



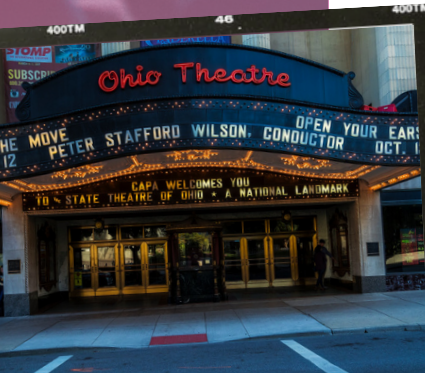
Here are some AIR recommendations for your team to implement throughout the life cycle of a project:

Commit a specific percentage of your slate to projects from underrepresented creatives, and leverage data and diversity of perspective to make content investment decisions.

Challenge your individual “gut” instincts and biases that are informing what you buy, who you hire, and how you choose to market a project.

While building the diversity of your team and your inclusion capabilities, take active steps to identify and collaborate with key third-party community and social issue experts during the development process. This helps ensure that you are creating authentic and accurate content from the start. Be sure to also leverage your DEIA team’s expertise and reference existing [tip sheets](#) and [resources](#) available to you throughout the filmmaking process.

While distributing greenlight power more equitably among executives, ensure that you are supporting a culture where calculated risks don’t jeopardize job security. Take time to analyze all factors of a film’s performance to avoid feeding into false industry narratives about which films work and which do not.





AIR RECOMMENDATIONS

(2/2)



Conduct production-wide training at the start of filming on the importance of specific themes or communities being represented in the project. Invest the time to educate your entire cast and crew about the subject matter and why certain creative decisions have been made. Doing so will also create safer, more respectful sets and foster a shared commitment to the film's success.

Ensure that marketing for films with diverse auspices are positioned for all consumers and not just the community that is represented. Being too limited with marketing strategies may impact a film's performance and continue to feed harmful narratives about which audiences are showing up for which films.

CSS is working on developing an AIR metric to help studios measure authentically inclusive representation in the development phase. If you are interested in learning more, please contact us at info@scholarsandstorytellers.com.



"*LOVE, SIMON* was the first time a major Hollywood studio put out a wide release teenage romantic-comedy with a gay lead storyline and, thanks to the warm response from critics and audiences, it will be the first of many. The GLAAD Media Institute worked with 20th Century on storytelling and promotions for this impactful and touching film and we were proud to recognize it as the recipient of the Outstanding Film-Wide Release award at the 30th Annual GLAAD Media Awards. *LOVE, SIMON* raised the bar for LGBTQ representation in wide release films and showed Hollywood how our stories can truly entertain and enlighten audiences. It will be watched for years to come by young LGBTQ people coming to terms with who they are and by parents looking for examples of how to support and uplift LGBTQ young people."

- Sarah Kate Ellis
President and CEO, GLAAD





DETAILED FINDINGS

(1/3)

FINDING #1

Large budget films with higher AIR scores made more on opening weekend.

Replicating our 2020 study, for large budget movies, higher AIR scores predicted higher opening box office numbers.

For every point increase in AIR, box office earnings increased by **\$18.8M**. Thus, a large budget movie scoring poorly on AIR (1 star) instead of a perfect 5 could be forfeiting a potential earning of **\$75.2M** more at the box office.

"FAST FIVE is the type of film that Hollywood always seems to be in search of, a blockbuster hit that is one of the 21st century's best action movies starring a wonderfully diverse and multi-cultural cast. It's all by the visionary Justin Lin who cut his teeth in the Asian American indie world before revitalizing a franchise that would dominate the world."

- Jess Ju
Director of Programs & Operations,
CAPE (Coalition of Asian
Pacifics in Entertainment)





DETAILED FINDINGS

(2/3)



FINDING #2

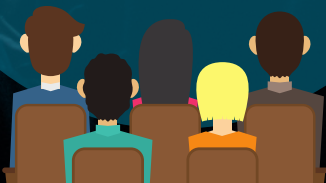
Regardless of budget, films that scored higher on AIR scored higher on Rotten Tomatoes for audience and critic scores as well.

Films scoring higher on AIR (3.5-5 stars) received significantly higher critic and audience scores from Rotten Tomatoes than films scoring lower on AIR (1-3.5 stars).

High AIR films scored

6%
higher on

audience scores



Critic and audience reviews were related to box office performance across the 1,000 films.

High AIR films scored

22%
higher on

critics scores





DETAILED FINDINGS

(3/3)



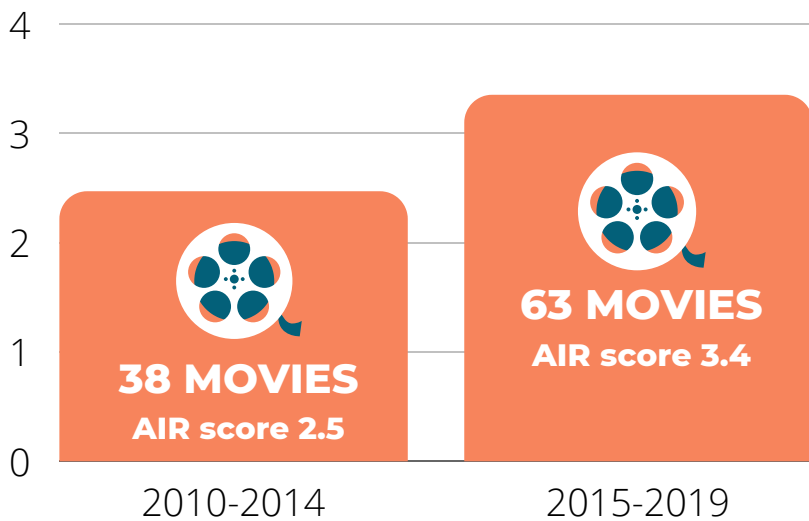
FINDING #3

From 2015 to 2019, films scored higher on AIR than in the previous five years.

Across the ten-year period, AIR scores significantly increased from 2010 to 2019, increasing by 0.15 points per year.

AIR scores were significantly higher in the most recent 5 years of the 10-year period.

AVERAGE AIR SCORES





METHOD

(1/4)



MEASURING AIR RELEVANCE IN FILMS

We started our analyses by using data provided by CAA who had contracted with Mediahound, a company that uses machine learning to 'tag' movies with storyline traits, assigning a film 0 (trait not relevant to the film) or 1 (trait relevant to the film) for each trait. Mediahound provided us with 61 storyline and character traits. Using human coding, we further refined the list and ended up with a final list of 37 traits (see page 17 for the full list) and 257 movies tagged with one or more of these traits. Using these tags, we grouped them under nine categories of marginalized communities to share with subject matter experts (FSI). For example, a movie tagged with the storyline trait, 'Questioning Sexuality', was grouped with movies that were reviewed by GLAAD, an organization that advocates for LGBTQ+ representation in film.

To confirm these tags were accurately categorized by the machine learning, FSI experts corroborated whether a film was indeed relevant to their community or organization. The films were assigned to different organizations who were tasked with answering the following questions:

- Have you seen this film? (yes/no)
- Is this film relevant to the group you represent (regardless of the quality of representation)? (yes/no)





METHOD

(2/4)



Of the 257 movies initially sent to the experts, 42 movies were rated as not relevant (although they had initially been tagged with a relevant trait to that group). This left a final sample of 215 films with stories that were inclusive of the diverse communities that FSI advocates for in media representation. In other words, this list of 215 films (out of the initial 1,000) determined which films with story-level representation were inclusive of the perspectives of marginalized communities. However, we didn't yet have a determination of HOW these films included marginalized communities - with authenticity or with stereotypes?

MEASURING THE QUALITY OF AIR IN FILMS

To find how authentically inclusive the representation was in our list of films, FSI organizations answered follow-up questions regarding the films that they confirmed were relevant.

The following organizations assessed the valence of AIR in our list of films in the following categories:

- lin4 Coalition** People with Disabilities
- CAPE** Asian American and Pacific Islander
- Color of Change** Black and/or African American
- Define American** Immigrant
- Geena Davis Institute** Gender Equity and Female Representation
- GLAAD** LGBTQ+
- IllumiNative** Native and Indigenous
- MPAC** Middle Eastern and Muslim
- NHMC** Hispanic and Latino



MEDIAHOUND TAG TABLE

FSI Organization	Tags
CAPE	Asian, Chinese, Japanese, Korean, Immigration, Racism, East Asian, South Asian, and Indian.
Color of Change	Affirmative Action, Racial Injustice, Race Relations, Racial Wealth Gap, Racism, Segregation, African-American Biographical Drama, and Black Cinema.
Define American	Immigration.
Geena Davis	Feminism, Female Empowerment, Questioning Gender Roles, and Sexism.
GLAAD	LGBTQ, Questioning Sexuality, Coming Out, LGBTQ+, Bisexual, Gay, and Lesbian.
IllumiNative	Indigenous People, and White People Living Among Indigenous Peoples.
MPAC	Middle Eastern, and Colonialism.
NHMC	Latino, Immigration, and Racism.
lin4 Coalition	Communicative Disability, Mental Disability, and Physical Disability.



METHOD

(3/4)



Some films were assigned to more than one organization as they contained storyline traits relevant to multiple groups that the organizations represent. Specifically, 5 films were rated by 2 organizations, 3 films were rated by 3 organizations, 1 film was rated by 4 organizations, and 1 film was rated by 5 organizations. While these films might represent the effect of intersectionality, we could not examine this question given the small number of films representing intersectional stories in total. In all cases, the ratings across each organization rating the movie were aligned and thus we averaged their AIR scores to create one total AIR score per film.

If the film was (1) seen and (2) considered relevant to the group represented, the organization was then asked to respond to the following questions on a 1 - 5 star scale (1 poor - 5 excellent):

1. How did the movie accurately portray authentic and inclusive representation (AIR)?
2. To what extent did this film's story or character development avoid relying on problematic or harmful stereotypes/tropes?
3. To what extent does this film's representation of characters' culture/group increase the complexity of a general audience's understanding of that culture/group?

Optional free response: Are there any thoughts you have about this film that weren't captured in the questions?

A reliability analysis revealed that all three responses to each film were highly related and consistent with each other ($\alpha = .895$), so we averaged across the 3 questions to create an average overall score of AIR. This allowed us to create a new refined definition of AIR that was continuous and ranged from 1 to 5 with a mean of 3.01 ($n = 101$).



METHOD

(4/4)



ANALYSES USING A CONTINUOUS MEASURE OF AIR

We performed a multiple linear regression analysis to examine the potential impact AIR scores have on box office earnings across small (\$15M), medium (\$78M), and large budget (\$159M) films. We also used the continuous measure of AIR to estimate the average AIR score of films from the first (2010-2014) versus second half (2015-2019) of the decade, which we then tested using an independent samples t-test.

ANALYSES USING A CATEGORICAL MEASURE OF AIR

Looking across production budgets to examine the effect of AIR on critic and audience reviews, we further classified movies into either low or high AIR groups. The low AIR group was defined as having an AIR score below the norm of 3.5 ($n = 62$) while the high AIR group consisted of films scoring above 3.5 ($n = 39$). We conducted independent sample t-tests to compare low vs. high AIR films' critic and audience ratings.

LIMITATIONS

While our initial dataset included 1,000 films for which we were able to investigate general trends over the last 10 years (movies tagged with diversity-relevant metrics, box office earnings, production budget, critic and audience reviews), we were ultimately interested in the quality of representation within films that contained storylines and/or character development aspects that were relevant to an underrepresented group or community. Thus, our 1,000 films worth of data netted down to 257 films with storylines relevant to the representation of marginalized communities. To preserve research rigor and the quality of our data, we then had FSI organizations rate those films. This research process resulted in a sample of 101 films with a full AIR rating used for the final analyses. While this sample size is smaller than our initial dataset, it is also reflective of the overall lack in representation of marginalized communities in films over the last 10 years. In the future, we aim to include more films in our dataset to replicate this finding.

ACKNOWLEDGEMENTS

We would foremost like to thank the CSS community and lab members whose support and feedback were integral to this project. A special thanks to Jeremy Hsing and Matthew Go for their early work on the data.

This report would not be possible without the leadership from our partners at CAA. We would like to acknowledge Maddy Roth and the CAA Foundation team and Ruben Garcia, André Vargas and the CAA data team for their commitment, creativity, and meaningful contributions to this work.

Most importantly, we would like to thank the organizations and cultural strategists from the Full Story Initiative who participated in our study and acknowledge their tireless advocacy work, expertise, and passion to positively impact the entertainment industry.

RESOURCES

To find out more about the work that The Center for Scholars & Storytellers is doing around diversity and inclusion, please visit www.scholarsandstorytellers.com/representation-diversity-inclusion.

To download our Authentic Inclusive Representation (AIR) report, visit www.scholarsandstorytellers.com/air.

For insights on how you can improve Authentic Inclusive Representation for Race in content, download our tip sheet at <https://www.scholarsandstorytellers.com/tip-sheets>.

For more information about the methods or details about this study, please contact us at info@scholarsandstorytellers.com.

If you are a creator or executive looking for specific community and/or issue-specific guidance in your storytelling, please download the Full Story Initiative Toolkit here: www.fullstoryinitiative.com/initiativeToolkit