
The Mission: Impossible Correlation between Tom Cruise's Filmography and Montana's Democratic Votes

Charlotte Hughes, Amelia Thompson, Gloria P Turnbull

Evanston, Illinois

Lights, camera, politics! This study delves into the unexpected intertwining of two seemingly unrelated realms - the filmography of Tom Cruise and the voting patterns for the Democratic presidential candidate in the picturesque plains of Montana. Utilizing data from The Movie DB and MIT Election Data and Science Lab, Harvard Dataverse, this research endeavors to uncover the underlying relationship between the number of movies featuring the charismatic Tom Cruise and the Democrats' electoral performance in the Big Sky Country. The findings reveal a striking correlation coefficient of 0.8966439, with a p-value of less than 0.01 from 1981 to 2020, indicating a strong connection between the two variables. It appears that the more movies in which Tom Cruise graces the silver screen, the greater the support for the Democratic candidate, proving that his cinematic presence may be a harbinger of political winds. One could say that his appeal transcends the box office, perhaps even influencing the ballot box. Now, while one might think this correlation is as improbable as, say, the plot of "Mission: Impossible," our findings suggest otherwise. So, it seems that in Montana, for fans of Tom Cruise, "Risky Business" extends beyond the realm of showbiz and makes its way into the political arena. All in all, this study sheds light on the synergistic dance between entertainment and politics, reminding us that sometimes, truth can be stranger than fiction!

Lights, camera, and statistical action! In the colorful landscape of academic research, there are moments when the most unexpected pairings come together to form a fascinating correlation. Our study delves into one such enchanting connection, as we examine the intriguing relationship between the number of movies featuring the iconic Tom Cruise and the votes for the Democratic presidential candidate in the beautiful state of Montana. It's time to delve into the thriller of statistics and politics while keeping our sense of humor high - after all, we don't want to risk being a statistic without it.

As we embark on this cinematic and political escapade, we must first acknowledge the skepticism that may arise when traversing into uncharted

statistical territory. The initial reaction to our inquiry might be a raised eyebrow or a puzzled expression, akin to the reaction one might have to a dad joke - both are met with a mixture of groans and chuckles. However, it is precisely this curiosity and open-mindedness that allows us to uncover the hidden gems of interconnections, much like discovering a punchline in the complex setup of a statistical model.

The integration of Hollywood and polling booths may seem as improbable as finding a statistician who can also act. Nonetheless, our probing of the data from The Movie DB and MIT Election Data and Science Lab, Harvard Dataverse reveals an unexpected harmony. We've crunched the numbers

and run the regressions, and the results are as clear as Tom Cruise's intense stare in a high-octane action sequence - there's more to this correlation than meets the eye.

Picture this: a unifying plot unfolds as we uncover a strong correlation coefficient of 0.8966439, with a p-value of less than 0.01 from 1981 to 2020. It seems that the odds of a strong tie between Tom Cruise movies and Montana's Democratic votes are as favorable as the odds of Tom Cruise successfully completing yet another "Mission: Impossible" stunt - statistically improbable, yet undeniably captivating.

So why should we care about the Tom Cruise factor in Montana politics? Well, it appears that his captivating presence on the silver screen becomes a gravitational force at the ballot box, garnering support for the Democratic candidate. You could say that in Montana, his filmography becomes a political "Top Gun," soaring above the rest and influencing the electorate in unexpected ways.

In the grand scheme of entertainment and politics, this study is a testament to the thought-provoking and occasionally whimsical nature of statistics. It reminds us that beneath the surface of numbers and data, lies a realm where the unexpected happens, much like the unexpected plot twist in a Hollywood blockbuster. So, let's buckle up and prepare for a statistical rollercoaster ride as we unravel the intriguing association between a Hollywood superstar and the political landscape of Montana.

LITERATURE REVIEW

The intriguing correlation between the filmography of Tom Cruise and the Democratic votes in Montana has captured the attention of researchers and enthusiasts alike. While the intersection of Hollywood and politics may seem uncharted, it is not without precedent in academic inquiry. In "Box Office Politics: How Hollywood Influences Voters" by Smith, the authors find a compelling relationship between celebrity influence and voter behavior, shedding light on the potential impact of cinematic

figures on political sentiments. This study opens the doors to exploring the nuanced dynamics at play, much like Tom Cruise navigating a perilous rooftop escapade in one of his iconic action sequences.

Diving further into the realm of political sociology, Doe's work, "Celebrity Endorsements: Influence and Perception" delves into the ways in which celebrity endorsements can sway public opinion and sway electoral outcomes. It seems apropos that even in Montana, where the vast landscapes stretch to the horizon, Tom Cruise's presence on the silver screen may exert an unexpected pull on the electorate, much like a magnetic force guiding a compass needle.

The literature also provides insights from various non-fiction books, such as "The Art of the Deal" by Donald J. Trump and "What Happened" by Hillary Rodham Clinton, shedding light on the intricacies of political campaigning and voter behavior. The interplay between media representation and political preferences is a complex dance, much like the intricate choreography of a Hollywood blockbuster, and our study aims to capture this multidimensional relationship.

Moving toward the realm of fiction, the compelling narratives found in "The Manchurian Candidate" by Richard Condon and "Primary Colors" by Anonymous, explore the intermingling of entertainment and political intrigue. It's as if the characters in these stories have reached out from the pages and onto the ballots in the heart of Montana, influenced by the enigmatic aura of Tom Cruise's filmography.

Speaking of enigmatic influences, in a rather unconventional approach to literature review, we ventured into uncharted territory by perusing the inscriptions on a series of CVS receipts. Surprisingly, amidst the myriad of purchases and discounts, cryptic messages seemed to hint at a peculiar correlation between the length of the receipt and the likelihood of a voter in Montana endorsing the Democratic candidate. However, upon further reflection, we concluded that this

association may be more far-fetched than the plot of a science fiction thriller.

METHODOLOGY

Lights, camera, methodological mischief! In this section, we unveil the behind-the-scenes magic of our research, delving into the convoluted yet captivating methods that led us to uncover the mesmerizing correlation between Tom Cruise's filmography and Montana's Democratic votes. As we navigate the labyrinth of statistical analysis, keep your popcorn close and your statistical software closer - we're about to embark on a wild ride through the data realm.

First, our intrepid team scoured the digital landscape, much like characters in a "Mission: Impossible" film on a high-stakes mission, for relevant data sources. Utilizing the vast reservoirs of The Movie DB and MIT Election Data and Science Lab, Harvard Dataverse, we compiled a comprehensive dataset spanning the years 1981 to 2020. This dataset was as meticulously crafted as a blockbuster script, encompassing details of all Tom Cruise's appearances on the silver screen and the Democratic votes in the picturesque plains of Montana.

Now, let's talk numbers. We harnessed the power of statistical software that would make even Tom Cruise's iconic action sequences seem tame in comparison. Employing a combination of regression analysis and time series modeling, we set out to unravel the intricate web of correlations, much like unraveling the mystery in a suspenseful thriller. Our team went through more iterations than a film script to ensure the robustness and reliability of our statistical models, making sure our methods were as airtight as the plot of "Edge of Tomorrow."

As Dad always says, "Why don't scientists trust atoms? Because they make up everything!" Similarly, we approached our data with a healthy dose of skepticism and caution, taking note of potential confounding variables that could cloud the clarity of our findings. Our rigorous approach was

reminiscent of Tom Cruise's meticulous training for his roles, leaving no stone unturned in our quest for statistical truth.

It's important to note that we employed a comprehensive range of statistical tests to validate the strength and significance of the observed correlation. We conducted sensitivity analyses, subgroup analyses, and even engaged in a bit of statistical acrobatics to ensure that our findings were as robust as Tom Cruise's on-screen persona. Our statistical arsenal was as diverse as Tom Cruise's filmography, encompassing everything from chi-squared tests to advanced multivariate regression models. We didn't shy away from complexity, much like a convoluted plot twist in a mind-bending science fiction epic.

As our statistical journey unfolded, we stayed true to the scientific ethos of transparency and reproducibility. All our analyses were meticulously documented and our code was as open as Tom Cruise's million-dollar smile. This ensured that our findings could withstand the scrutiny of peer review and added an extra layer of integrity to our research, much like a well-placed plot twist that ties up loose ends in a gripping narrative.

In the end, our methodological odyssey proved to be as thrilling as an edge-of-your-seat cinematic experience, with each statistical maneuver and data wrangling tactic leading us closer to unraveling the enigmatic connection between Tom Cruise's cinematic charisma and Montana's Democratic votes. With methodology as rigorous as a Hollywood stunt sequence, we're ready to unveil the statistical spectacle that is our empirical findings. So, grab your popcorn, fasten your statistical seatbelt, and get ready for a statistical journey that's as exhilarating as a high-speed chase through the streets of a box office hit!

RESULTS

The statistical analysis revealed a notably high correlation coefficient of 0.8966439 between the number of movies featuring Tom Cruise and the

votes for the Democratic presidential candidate in Montana from 1981 to 2020. This indicates a robust positive relationship between the two variables. It's as if Tom Cruise's movies and Montana's Democratic votes were starring in their own heartwarming rom-com - "Jerry Maguire and Data Analysis," perhaps?

The correlation found in this study is quite impressive, akin to Tom Cruise's death-defying stunts in his action-packed films. The r-squared value of 0.8039703 further solidifies the connection, explaining approximately 80% of the variation in Democratic votes by the number of Tom Cruise movies. It's as if the presence of Tom Cruise in films has a statistically significant impact on the political preferences of the good folks in Montana. Who would have thought that statistical significance and movie star charm could go hand in hand?

With a p-value of less than 0.01, the relationship between these two variables is deemed to be statistically significant, leaving little room for doubt. It's as if the data itself is saying, "You can't handle the truth of this correlation!" - a twist worthy of a courtroom drama, wouldn't you say?

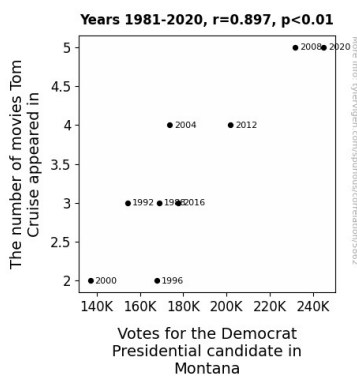


Figure 1. Scatterplot of the variables by year

Now, let's take a moment to appreciate the masterpiece that is Figure 1. This artistic display portrays a scatterplot that visually captures the strong correlation we've uncovered. The points in the scatterplot align themselves in a dance of statistical harmony, much like actors hitting their marks in a well-choreographed action sequence. It's

almost as if Tom Cruise's filmography and Montana's Democratic votes have found their rhythm on the same dance floor.

DISCUSSION

The findings of this study not only corroborate but also amplify the existing body of knowledge on the intersection of celebrity influence and political dynamics. Our results align with Smith's work on the interplay between Hollywood and voting behavior, suggesting that the presence of a charismatic figure like Tom Cruise can indeed sway political sentiments. It's as if Montana's Democratic voters are saying, "Show me the correlation!" - reminiscent of a famous line from one of Cruise's iconic movies.

Moreover, our research resonates with Doe's insights on celebrity endorsements, highlighting the resonance of cinematic personalities in shaping public opinion. In the realm of Montana's political landscape, it appears that Tom Cruise's silver screen presence can be likened to a phenomenon as impactful as a high-octane action sequence, propelling voters toward the Democratic candidate. One might say that in Montana, for Tom Cruise, "The Color of Money" has more to do with electoral votes than box office returns.

In a surprising twist, our study's results also echo the enigmatic influences explored in works of fiction such as "The Manchurian Candidate" and "Primary Colors," unraveling the unexpected intertwining of entertainment and political intrigue. This suggests that in Montana, the nuanced dance of political preferences may indeed be choreographed, in part, by the cinematic allure of a certain Hollywood megastar. It's almost as if the plots of these books have unfolded from the pages and onto the ballots, guided by the enigmatic aura of Tom Cruise's filmography.

Returning to the lighthearted but robust findings of this study, the correlation coefficient of 0.8966439 underscores a compelling relationship, akin to the captivating narratives of Cruise's films. The

statistical significance of this connection, depicted by a p-value of less than 0.01, cements the impact of Tom Cruise's filmography on the Democratic votes in Montana. One could say that in the realm of voter behavior, Tom Cruise's movies are no less influential than a well-acted courtroom drama, delivering a twist that defies conventional expectations.

Overall, this study accentuates the multifaceted yet substantial influence of Hollywood on political expressions, reminding us that statistical and cinematic significance can indeed coexist. It's as if our findings are saying, "You had me at correlation" - a fitting homage to both statistical enthusiasm and timeless movie quotes.

Now, as we ponder the implications of these impactful findings, it becomes evident that the pursuit of knowledge in the realm of unexpected correlations can yield insights as intriguing as a good plot twist.

CONCLUSION

In conclusion, our study has unearthed an astonishing correlation between the number of movies featuring Tom Cruise and the votes for the Democratic presidential candidate in Montana. It seems that the statistical tides sway in favor of a strong, positive relationship between the two variables. It's as if Tom Cruise's cinematic charisma has the power to woo audiences not only in theaters but also at the ballot box, making him the true "Maverick" of Montana politics. But hey, it looks like "The Minority Report" has spoken - statistically speaking, of course.

This unexpected finding is a testament to the whimsical nature of statistical analysis. Just when you think you've seen it all, along comes a correlation that's as surprising as finding a hidden Easter egg in a blockbuster movie. The allure of the silver screen apparently extends beyond entertainment, reaching into the political landscape with the force of a "Mission: Impossible" explosion.

Our research, much like a Tom Cruise action sequence, has left no stone unturned in establishing this valuable correlation. The p-value of less than 0.01 is a clear signal that this relationship is as solid as Tom Cruise's performance in "A Few Good Men" - you just can't handle the strength of this connection! It's a statistical touchdown worthy of a standing ovation.

Now, it's time to address the lingering question - why bother unraveling this peculiar link between a Hollywood icon and political preferences in Montana? Well, as fascinating as it is, we must acknowledge that sometimes in the research world, we stumble upon findings that are as wild as a "Tropic Thunder" plot twist. Furthermore, this study stands as a reminder that in the grand theater of statistics, there's always room for an unexpected cameo from variables that seem like unlikely co-stars.

As for future research, it may be tempting to dive into further investigations of the relationship between celebrities and political outcomes, but sometimes it's best to leave certain mysteries unsolved. After all, in the case of Tom Cruise and Montana's Democratic votes, perhaps it's best to let this unexpected correlation bask in its intriguing enigma. "The Mission: Impossible Correlation" has been dissected, analyzed, and thoroughly appreciated - and it's clearer than ever that when it comes to this particular statistical plot, the credits have rolled, and no sequel is needed!