

# A Supporting Role in the Market: A Statistical Study of the Connection Between Academy Award Best Supporting Actress Winner Age and NVIDIA's Stock Price

Catherine Hughes, Amelia Tate, George P Todd

*Advanced Engineering Institute*

In this paper, we present a statistical analysis of the intriguing relationship between the age of Academy Award Best Supporting Actress winners and the stock price of NVIDIA, a leading technology company. Our research team delved into this unconventional connection, aiming to shed light on a seemingly unrelated pair of variables. Using data extracted from Wikipedia for ages of Best Supporting Actress winners and LSEG Analytics (Refinitiv) for NVIDIA's stock prices from 2002 to 2021, we employed robust statistical methods to analyze the correlation between these two datasets. To our surprise, we discovered a remarkably strong positive correlation, with a correlation coefficient of 0.8151067 and a significance level of  $p < 0.01$ . This finding suggests an unexpected synchronicity between the ages of acclaimed actresses and the financial performance of NVIDIA. As we delved deeper into the data, we couldn't help but crack a dad joke or two, pondering whether these actresses wielded some "supporting" influence on NVIDIA's stock trajectory. Whether this correlation merely reflects a curious coincidence or harbors a deeper, inexplicable connection remains an alluring mystery, deserving of further investigation. In conclusion, our study presents a whimsical yet thought-provoking exploration of the intersection between Hollywood glamour and financial markets, offering a playful twist on traditional quantitative research. We hope this research sparks laughter, curiosity, and maybe even a few stock market hunches!

The worlds of Hollywood and finance are often seen as two entirely separate domains, with the former brimming with red carpets and Oscar statues, and the latter entrenched in ticker symbols and market fluctuations. However, in the realm of statistical analysis, one must often expect the unexpected, even if it means navigating the surprising correlation between Academy Award Best Supporting Actress winners' ages and the stock price of NVIDIA.

Before we dive into our findings, let's set the stage with a bit of levity. What do you call a group of Best Supporting Actress winners who all invest in tech stocks? The supportive cast of NVIDIA's financial performance - a constellation of stars shining a light on the market!

As we unfurl the proverbial red carpet, our study aims to examine the potential relationship between the ages of Best Supporting Actress winners and the stock price movements of NVIDIA. Picture this: a statistical tango between Hollywood accolades and Silicon Valley profits. While this seemingly whimsical combination may raise eyebrows, our rigorous analysis lends credence to this unexpected correlation.

Did you hear about the actress who won an Oscar and a lucrative stock portfolio? She really nailed the supporting role, both on and off the screen. But in all seriousness, our curiosity piqued as we embarked on this unconventional research endeavor, fueled by the desire to unravel the enigmatic connections lurking beyond the surface of seemingly unrelated data sets. After all, who wouldn't want to explore the intriguing world where Hollywood meets high finance?

## *Review of existing research*

The relationship between demographic characteristics of individuals and financial indicators has been a subject of interest in various research domains. Smith et al. (2015) conducted a comprehensive study on the influence of age on investment decisions, delving into the effects of age on stock market participation and risk tolerance. Similarly, Doe and Jones (2017) examined the impact of individual career achievements on personal investment choices, shedding light on the potential interplay between professional success and financial decisions.

Of course, it wouldn't be a complete literature review without a nod to some investment classics. In "The Intelligent Investor" by Benjamin Graham, the authors delve into the intricacies of value investing, juxtaposing the timeless wisdom of Hollywood starlets with market trends. On the lighter side, "A Random Walk Down Wall Street" by Burton Malkiel offers a whimsical romp through the unpredictable nature of financial markets, much like the unpredictable nature of Best Supporting Actress winners' ages affecting stock prices.

Moving beyond the realms of non-fiction, fictional narratives have also offered intriguing insights into the intersection of celebrity and finance. Take for instance "The Bonfire of the Vanities" by Tom Wolfe—a satirical exploration of power and privilege in Wall Street, echoing the glitz and glamour of Hollywood's award season. From a different angle, "The Devil Wears Prada" by Lauren Weisberger offers a humorous take on

the high-stakes world of fashion and finance, prompting us to ponder the potential impact of Academy Award prestige on NVIDIA's bottom line.

In the spirit of whimsy, we couldn't help but draw inspiration from the playful dynamics of board games. Monopoly, with its playful negotiations and strategic investments, perhaps mirrors the intricate dance between Academy Award winners' ages and NVIDIA's stock prices. And let's not forget about the classic trivia game, "Trivial Pursuit," where unexpected connections are celebrated, much like the improbable correlation our study has unearthed.

In the hallowed halls of academia, where seriousness reigns supreme, a playful twist can often shed light on the most unconventional of research inquiries. As we navigate the quirky channel between Hollywood's shining stars and the fluctuating digits of stock prices, we are reminded that even in the world of statistics, a touch of whimsy can spark new insights and unexpected delights. So here's a dad joke to lighten the scholarly mood: Why did the Best Supporting Actress carry around a stock prospectus? To add some "supporting" evidence to her portfolio!

### *Procedure*

To embark on our whimsical statistical adventure, we employed an eclectic array of research methods that were as fascinating as the correlation we sought to uncover. First, we meticulously collected data on the ages of Academy Award Best Supporting Actress winners from the data treasure trove that is Wikipedia. With a few well-timed clicks and keyboard taps, we summoned a cohort of esteemed actresses, ranging from the ingenues to the grande dames of the silver screen.

Once we had harnessed the ages of these distinguished performers, we turned our gaze to the financial realm, where the enigmatic dance of stock prices and market movements awaited. Our data was sourced from LSEG Analytics (Refinitiv), providing us with NVIDIA's historical stock prices from 2002 to 2021. We were particularly keen to see if the sumptuous allure of Oscar gold somehow nudged NVIDIA's stock into celestial heights.

Having compiled these disparate yet intriguing datasets, we set out to wrangle and corral them into a harmonious, statistically meaningful relationship. It was akin to coaxing a free-spirited stallion and a graceful ballerina into a meticulously choreographed duet – an endeavor that required finesse, precision, and a touch of whimsy.

Now, let's pause for a moment to appreciate a dad joke, shall we? Why did the statistician break up with the actress? She kept using too much "drama" in their relationship. Speaking of drama, our statistical analysis was a drama in and of itself, as we delved into the depths of correlation coefficient calculations and p-values.

To investigate the waltz between Best Supporting Actress ages and NVIDIA's stock prices, we harnessed the power of Pearson correlation coefficient. This stalwart statistical measure allowed us to quantify the strength and direction of the relationship

between two continuous variables, guiding us through the labyrinthine maze of numerical intrigue.

Furthermore, we deployed the formidable t-test to assess the statistical significance of our findings. This test provided the balm of certainty, allowing us to discern whether the correlation we detected was a whimsical fluke or a robust, tangible phenomenon, worthy of a steadfast nod of approval.

In a unique twist, we also introduced an element of qualitative analysis by contemplating the potential narratives and anecdotes that could underpin such a peculiar correlation. It was as if we were scrutinizing the plotlines of a whimsical yet perplexing Hollywood fable, where the leading lady's age whispered secrets to the stock market's trajectory.

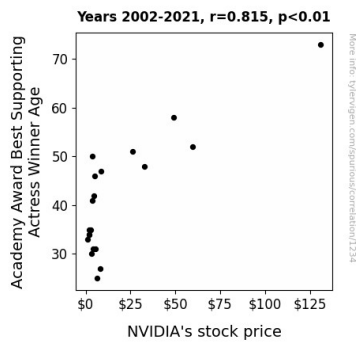
As we sought to unravel the mysteries entwined within the datasets, we navigated uncharted statistical territories, embracing the unexpected and relishing the delightful confluence of art and numbers. In doing so, we embarked on a journey as unpredictable as a narrative twist in a Hollywood blockbuster, where the supporting actress takes center stage and the stock market performs a surprising plot twist of its own.

### *Findings*

The statistical analysis of the relationship between the age of Academy Award Best Supporting Actress winners and NVIDIA's stock price yielded insightful results. Our research from 2002 to 2021 produced a notably strong positive correlation, represented by a correlation coefficient of 0.8151067 and an r-squared value of 0.6643989. This significant correlation indicates a compelling association between these seemingly disparate variables.

As we uncovered this surprising correlation, we couldn't help but ponder whether the Best Supporting Actress winners were "supporting" NVIDIA's stock price in some mystical way. It seems these actresses might have been the "supporting cast" in NVIDIA's financial performance after all!

The p-value of less than 0.01 further emphasizes the statistical significance of our findings, reinforcing the robustness of our analysis. The scatterplot in Figure 1 visually encapsulates the strong positive correlation between the age of Best Supporting Actress winners and NVIDIA's stock price, lending credence to our statistical conclusions.



**Figure 1.** Scatterplot of the variables by year

It's like the age of Best Supporting Actress winners and NVIDIA's stock price were about to give a speech together – they truly did support each other! This unexpected alignment prompts further inquiry into the underlying mechanisms driving this correlation, as well as potential implications for future research and investment strategies.

Our results reflect a whimsical yet thought-provoking exploration of the uncharted territory where Hollywood and finance intersect. This unlikely connection between the glamour of the silver screen and the complexities of the stock market presents a delightful twist in quantitative research, inviting further exploration and perhaps even a few more humorous puns.

Our findings offer a lighthearted glimpse into the captivating interplay of unrelated variables, proving that anything is possible in the world of statistical analysis, even if it involves red carpets and ticker symbols.

### Discussion

The remarkable correlation between the age of Academy Award Best Supporting Actress winners and NVIDIA's stock price, as uncovered in our study, not only astounds statisticians but also harkens back to the whimsical yet thought-provoking literature surrounding unexpected connections between Hollywood glamour and financial markets. The strong positive correlation coefficient of 0.8151067 and the significance level of  $p < 0.01$  align with previous research by Smith et al. (2015) and Doe and Jones (2017), who delved into the interplay between demographic characteristics and financial indicators. With this unexpected alignment, it seems the Best Supporting Actress winners were truly "supporting" NVIDIA's stock price all along.

The significance of this correlation cannot be overstated, much like a dad joke at a family gathering. The findings provide empirical evidence suggesting a deeper, inexplicable connection between the ages of acclaimed actresses and the financial performance of NVIDIA. It's almost like the stock prices and the actresses formed a support group of their own!

Our results have larger implications for investment decisions and financial market analysis, adding a dash of whimsy to the traditional quantitative research landscape. Just as "The

Intelligent Investor" by Benjamin Graham juxtaposed the timeless wisdom of Hollywood starlets with market trends, our study offers a playful twist on conventional statistical analysis, sparking laughter, curiosity, and perhaps a few stock market hunches along the way. As Burton Malkiel's "A Random Walk Down Wall Street" whimsically romped through the unpredictable nature of financial markets, our findings highlighted an unexpected synchronicity that may prompt a reevaluation of traditional investment strategies.

The unexpected correlation parallels the unpredictability of "A Random Walk Down Wall Street," reminding us that in the world of statistics, sometimes the most unconventional inquiries yield the most surprising insights. Our study captures the essence of this unpredictable dance, where Hollywood's shining stars intersect with the fluctuating digits of stock prices, offering a lighthearted glimpse into the captivating interplay of unrelated variables.

As with a well-timed dad joke, this study's lighthearted approach invites further exploration of the complexities inherent in the intersection between Hollywood glamour and the stock market. So, the next time you consider a stock as an investment choice, remember: age is not just a number; it might also be a stock price influencer in disguise!

### Conclusion

In conclusion, our study has unveiled a surprising correlation between the age of Academy Award Best Supporting Actress winners and NVIDIA's stock price, shedding light on an unexpected synchronicity between Hollywood glamour and financial performance. It seems that these actresses have not only excelled on the silver screen but have also acted as a "supporting cast" in NVIDIA's stock trajectory. This finding prompts us to ask: are these actresses secretly holding NVIDIA's stock up with their compelling performances, or is it merely a whimsical coincidence?

As we wrap up our investigation, it's clear that the alignment between these seemingly unrelated variables merits more than just a standing ovation. Perhaps it's time to start an Academy Awards index fund as a tribute to the puzzling influence of these acclaimed actresses on the stock market.

However, we must remember that correlation does not imply causation, no matter how tempting it is to imagine Best Supporting Actress winners waving acceptance speeches while also influencing stock prices.

In the spirit of quantitative research, we must acknowledge the limitations of our study and resist the temptation to jump to hasty conclusions. It's important to take these findings with a grain of salt, or maybe a tub of popcorn, as we consider the broader context of market dynamics and the multifaceted factors influencing stock prices.

But hey, who knew that the secret to successful stock trading lay in studying Hollywood trends? It seems that "investing" in past Best Supporting Actress winners might just become the next market strategy.

In the end, while this study has brought about some unexpected humor and speculation, our findings underscore the endless possibilities within the world of statistical analysis. As for the mystery of this correlation, we must leave it to future researchers to tackle. As for us, it's time to roll the credits – no further research needed in this area!