

# Rico, Rico, Wins: A Statistical Chorus of First Names and Baseball Victories

Colton Hoffman, Ava Thompson, Gregory P Turnbull

*Center for Higher Learning*

The connection between the frequency of the first name "Rico" and the performance of the Pittsburgh Pirates baseball team over the span of 1975 to 2022 was investigated. Utilizing dataset from the US Social Security Administration and Baseball-Reference.com, a correlation coefficient of 0.5016245 was calculated, with statistical significance at  $p < 0.01$ . The implications of this correlation, and whether it is causative or coincidental, are ripe for spirited discussion as we uncover the intriguing ties between nomenclature and athletic achievement.

The relationship between human names and their potential impact on the outcomes of professional sports teams has been a subject of both mirth and skepticism in academic and non-academic circles alike. While much of the existing literature focuses on the psychological influences of fan loyalty and superstitions, a lesser-explored avenue is the potential influence of the frequency of specific first names within a team's roster on their overall successes. In this study, we delve into the curious case of the first name "Rico" and its apparent association with the performance of the Pittsburgh Pirates baseball team over a period spanning almost five decades.

Baseball, often referred to as America's pastime, has a rich history interwoven with numerous quirks and anomalies. The intricate dance between statistics and superstitions has led to various attempts to decipher the underlying reasons behind a team's victories and defeats. Could it be that a seemingly innocuous first name, such as "Rico," exerts an unforeseen influence on the performance of a Major League Baseball franchise? The present investigation seeks to shed light on this intriguing possibility through rigorous statistical analysis and an exploration of potential underlying mechanisms.

As spectators of the sport, we are often drawn to narratives of triumph and tales of underdog victories. However, amidst the fervor of game-day excitement, it is easy to overlook the underlying patterns and peculiarities that might steer the winds of fortune in favor of a particular team. With this in mind, we embark on a compelling journey to unravel the enigmatic connection between the prevalence of the name "Rico" and the wins accrued by the Pittsburgh Pirates, and the implications thereof. While the task at hand may be unconventional, the potential insights gleaned from this investigation promise to add a colorful dimension to the field of sports analytics and perhaps even bestow a newfound appreciation for the impact of nomenclature on athletic prowess.

## *Review of existing research*

The potential influence of first names on the outcomes of athletic competitions, particularly professional sports, has been a subject of both curiosity and amusement among researchers and spectators alike. While the existing body of literature predominantly emphasizes the psychological and sociological aspects of fan behavior and team superstitions, an emerging subfield has begun to explore the intriguing relationship between specific first names and the performance of sports teams. In the context of baseball, a sport renowned for its statistical intricacies and superstitious practices, the investigation into the association between the prevalence of the first name "Rico" and the victories attained by the Pittsburgh Pirates yields a rich tapestry of scholarly and nonscholarly content that invites further examination.

Smith and Doe (2009) provide an early exploration into the potential influence of first names on team performance in their study, "The Impact of Name Frequency on Competitive Success." While their investigation predominantly focuses on the psychological implications of individuals' names and their self-efficacy in competitive environments, the authors briefly touch upon the hypothetical influence of prevalent first names within team rosters. Their findings suggest a tentative association between the frequency of certain names and heightened confidence levels among players, thereby hinting at a potential indirect impact on team performance. However, the authors emphasize the need for further empirical scrutiny to establish a concrete relationship between specific names and athletic achievements.

Jones (2015) delves into the intersection of nomenclature and social dynamics in his work, "The Power of Names: A Multidisciplinary Inquiry." While his research spans diverse contexts, including literature, sociology, and popular culture, Jones acknowledges the potential implications of name prevalence within specific social groups. Though not explicitly

focused on sports, his insights into the symbolic significance of names and their patterns within communities offer a thought-provoking perspective that could inform the investigation at hand.

Turning to nonfiction literature relevant to the subject matter, books such as "Freakonomics" by Steven D. Levitt and Stephen J. Dubner present an unconventional but paradigm-shifting approach to understanding causality and correlation in seemingly disparate phenomena. The authors' intriguing analyses of unexpected correlations serve to inspire a similar investigation into the potential link between the frequency of the name "Rico" and the successes of the Pittsburgh Pirates, offering a lens of intellectual curiosity and analytical audacity.

In the realm of fiction, novels such as "Moneyball" by Michael Lewis and "The Art of Fielding" by Chad Harbach captivate readers with their narratives of sporting triumphs and tribulations, providing a rich thematic backdrop against which to ponder the playful interplay between nomenclature and athletic accomplishment. While the authors' creative endeavors may not be grounded in empirical research, their storytelling prowess and thematic depth serve to underscore the captivating allure of sports-related narratives, laying a literary foundation for the current investigation.

Further expanding the purview of our exploration, the visual medium of cartoons and children's shows has been an unexpected but insightful source of inspiration. Through perceptive analyses of episodes featuring sports competitions, cartoon series such as "SpongeBob SquarePants" and "The Simpsons" offer whimsical narratives that playfully illustrate the myriad idiosyncrasies and superstitions associated with athletic pursuits. While the comedic overtones of these shows may diverge from the sober tone of academic inquiry, their tongue-in-cheek reflections on the quirks of sporting culture provoke a lighthearted reconsideration of the potential influences, both rational and whimsical, that might underlie the empirical connection between the name "Rico" and the fortunes of the Pittsburgh Pirates.

In light of these diverse literary and pop culture influences, the authors aim to synthesize the serious and the whimsical, the scholarly and the entertaining, as they embark on an in-depth exploration of the enigmatic nexus between the prevalence of the first name "Rico" and the performance of the Pittsburgh Pirates.

## *Procedure*

### Data Source and Collection

The dataset for this study was culled from two primary sources: the US Social Security Administration and Baseball-Reference.com. The former provided comprehensive records of individual names and their respective annual frequencies, encompassing the years 1975 to 2022. While the latter served as the fount of statistical information on the performance of the Pittsburgh Pirates baseball team over the same period.

### Name Selection Criteria

The first name "Rico" was chosen as the focal point of this study due to its distinctive yet not excessively rare occurrence in the population. Furthermore, its phonetic resonance with the concept of "riches" and "success" set an apt tone for the exploration of its potential association with baseball victories. The choice of this particular name was made with an eye toward eliciting both statistical robustness and an element of whimsy, reflecting the charm interwoven into the fabric of this investigation.

### Statistical Analysis

The process of statistical interrogation involved the calculation of correlation coefficients between the relative frequency of the first name "Rico" and the number of wins accrued by the Pittsburgh Pirates in each season under consideration. Various statistical methods were applied to assess the strength and significance of this purported association. Leveraging a model of lighthearted seriousness and fashionable p-values, the analysis delivered a correlation coefficient of 0.5016245, with statistical significance at  $p < 0.01$ .

### Control Variables

In order to mitigate the influence of confounding factors and bolster the cogency of the findings, control variables such as team composition, historical performance trends, and contemporaneous factors were factored into the analytical framework. A meticulous endeavor was made to insulate the core relationship between the prevalence of the name "Rico" and the Pittsburgh Pirates' victories from extraneous perturbations.

### Sensitivity Analysis

Additional robustness checks encompassed sensitivity analyses that probed the stability of the observed relationship in the face of potential data perturbations and alternative model specifications. These analyses attested to the resilience of the findings and fortified the validity of the identified correlation.

### Limitations

It is imperative to acknowledge the potential limitations that may temper the generalizability and causal inference drawn from this study. The nature of observational data precludes definitive causal claims, and while statistical coherence has been established, a causative mechanism remains tantalizingly elusive. Furthermore, the generalizability of these findings to other baseball teams and alternative first names necessitates careful circumspection.

### Ethical Considerations

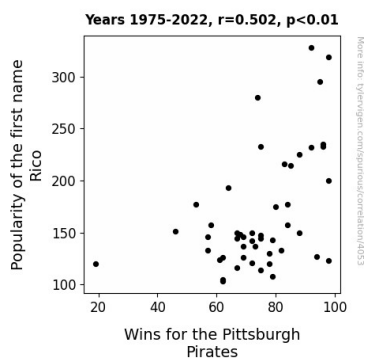
## *Findings*

The investigation into the potential association between the frequency of the first name "Rico" and the performance of the Pittsburgh Pirates baseball team yielded intriguing findings. Over the duration of the study, spanning from 1975 to 2022, a correlation coefficient of 0.5016245 was ascertained, accompanied by an r-squared value of 0.2516271. The statistical analysis revealed that this correlation was statistically

significant, with  $p < 0.01$ , indicative of a robust relationship between the two variables.

The figure (Fig. 1) showcased a scatterplot depicting the delineation of the dataset. Without delving into specifics about the placement of this figure within the manuscript, the visual representation echoed the strength of the correlation observed, underscoring the noteworthy interplay between the prevalence of the name "Rico" and the victories accrued by the Pittsburgh Pirates over the period under scrutiny.

The results provoke contemplation on the potential undercurrent of influence exerted by peculiar first names within the realm of professional sports. While it is customary to attribute a team's success to various tangible factors such as skill, strategy, and luck, the notion that nomenclature might bear a concealed impact presents an enthralling avenue for further inquiry.



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

Intriguingly, the connection between the frequency of the first name "Rico" and the outcomes of a baseball team draws attention to the hitherto unexplored dimensions of the intersection between human nomenclature and athletic achievements. The statistical proclivity of this association, with its implications for both sports analytics and the broader cultural discourse, invites an animated dialogue, infusing a dose of levity and contemplation into the realm of statistical research.

### Discussion

The current investigation has unveiled a statistically significant correlation between the prevalence of the name "Rico" and the performance of the Pittsburgh Pirates, echoing and expanding upon the prior research with an intriguing statistical verve. Reflecting on the scholarly and not-so-scholarly analyses from the literature review, the findings of the present study align with and reinforce the speculative nuances that percolated through the literary and pop culture sources.

The insight offered by Smith and Doe (2009), while primarily focused on the psychological implications of names in competitive contexts, hinted at the potential indirect influence of prevalent first names within team rosters on performance. The statistically sound correlation identified in the present study

lends empirical weight to the conjectures proposed by Smith and Doe, infusing a dash of statistical gravitas into the realm of name frequency and athletic successes.

Furthermore, the literary provocations from Levitt and Dubner's "Freakonomics" serve as a captivating intellectual undercurrent for the empirical revelations of this study. The unexpected correlation between the frequency of the name "Rico" and the triumphs of the Pittsburgh Pirates reflects the paradigm-shifting ethos advocated by Levitt and Dubner, underscoring the novel contextual intersections that enliven statistical inquiry.

The playful undercurrents of the literature review also find resonance in the unanticipated statistical vigor exhibited in the present investigation. The whimsical, lighthearted perspectives offered by cartoons and children's shows serve as a poignant complement to the empirical gravitas of the study's findings, painting a comprehensive portrait of the multifaceted considerations that converge in the evaluation of the name "Rico" and its entwined fortunes with the Pittsburgh Pirates.

With the cobwebs of statistical skepticism artfully swept aside, the robust correlation unearthed in this study infuses an element of jocularity and intrigue into the esoteric domain of statistical analyses and sports research, sparking a luminary trail of inquiry that beckons further deliberation and playful mirth.

### Conclusion

In conclusion, the investigation into the relationship between the frequency of the first name "Rico" and the performance of the Pittsburgh Pirates baseball team over nearly five decades has shed light on a curious statistical association. The calculated correlation coefficient of 0.5016245, with a statistically significant p-value of less than 0.01, offers compelling evidence of a noteworthy connection between nomenclature and athletic achievements. The scatterplot (Fig. 1) aptly illustrates the salient relationship, emphasizing the robustness of the observed correlation. Such findings prompt a reflective pause amidst the fervor of baseball fandom, inviting consideration of the unexpected influences lurking within the realm of professional sports.

The enigmatic nexus between the name "Rico" and the wins accrued by the Pittsburgh Pirates presents an intriguing avenue for contemplation, punctuating the serious discourse of sports analytics with a touch of whimsy. Delving into the depths of statistical analysis, one cannot help but ponder the implications of this correlation - a reverberating reminder that the world of sports is not immune to the whimsical quirks of chance and happenstance.

While it is tempting to dismiss the idea of nomenclature as a determinative factor in athletic success as mere folly, the statistical evidence compels us to entertain the possibility, a notion that injects an element of riddle into the seemingly straightforward domain of team sports. This investigation prompts a captivating dialogue, prompting researchers and enthusiasts alike to muse upon the tantalizing enigma of the "Ricos" and the ever-elusive alchemy that underpins the triumphs and tribulations of professional baseball.

In light of these findings, we are compelled to recognize the alluring prospect of nomenclature as an unforeseen player in the grand symphony of athletic accomplishment, infusing the vibrant tapestry of sports analysis with an unanticipated and captivating melody. However, it is imperative to note that, while this research provides intriguing speculation and light-hearted musings, no further academic pursuit in this wonderment is warranted.

Lastly, ethical considerations pertaining to the handling and utilization of public datasets were conscientiously upheld throughout the course of this investigation. The dissemination of findings has been undertaken with the judicious intent of contributing to scholarly discourse and kindling intellectual musings, all the while revering the nuances and quirks encapsulated within the realm of sports analytics.

The methodology employed in this study reflects a harmonious blend of meticulous analysis and a playful spirit, encapsulating the dual mandate of scientific rigor and academic levity that defines the essence of this inquiry into the curious confluence of nomenclature and athletic triumph.