

# Draw Blood and Derive Laughs: The Correlation Between Nerdy Stand-Up Maths YouTube Video Titles and the Number of Phlebotomists in Tennessee

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In this paper, we explore the intriguing relationship between nerdy Stand-Up Maths YouTube video titles and the number of phlebotomists in the great state of Tennessee. Utilizing cutting-edge AI analysis of YouTube video titles and Bureau of Labor Statistics data, we set out to answer the age-old question: do the mathematical musings of Matt Parker and his fellow nerdy YouTubers have any impact on the demand for phlebotomists? To our surprise and amusement, we found a remarkably strong correlation ( $r = 0.8782664$ ) and statistically significant results ( $p < 0.01$ ) from 2012 to 2022. Our findings suggest that the quirky, derivative humor inherent in these video titles may indeed be influencing the career choices of Tennessean blood-drawers. This study not only sheds light on an unexplored area of research but also serves as a whimsical reminder that correlations, though statistically sound, can sometimes leave us scratching our heads and laughing heartily at the bizarre connections found in the world of data analysis.

## INTRODUCTION

The intersection of mathematics, comedy, and blood may seem like a Venn diagram with little overlap, but our research aims to prove that there's more correlation than expected. In this study, we delve into the peculiar realm of nerdy Stand-Up Maths YouTube video titles and their potential influence on the number of phlebotomists in Tennessee. The seemingly disparate worlds of mathematical musings and venipuncture converge in an unexpected dance of data analysis, with results that are as surprising as they are entertaining.

As Albert Einstein famously remarked, "The only reason for time is so that everything doesn't happen at once." Similarly, the only reason for this study is to explore the quirky and somewhat whimsical connection between two seemingly unrelated variables. We sought to discern whether the clever, pun-laden titles of nerdy math-related YouTube videos have any discernible impact on the demand for phlebotomists in the Volunteer State. This inquiry may seem far-fetched to some, but as researchers, it is our duty to explore the uncharted territories of statistical whimsy.

Our endeavor was not only driven by scientific curiosity but also a quest for a good laugh. After all, who said statistical analysis couldn't be infused with a healthy dose of levity? It is in this spirit of academic mirth that we embarked upon our investigation, armed with regression analyses, p-values, and an array of math-related puns.

The stage is set, the audience is seated, and the data is awaiting its moment in the spotlight. Join us as we unravel the mysteries behind the relationship between nerdy mathematical humor and the noble art of bloodletting. As we venture forth into uncharted

statistical territory, we are reminded of the sage words of the comedic mathematician, Matt Parker, who said, "Mathematics may not teach us to add love or subtract hate, but it gives us hope that every problem has a solution." In the case of our research, the problem at hand is determining the degree to which Stand-Up Maths titles impact phlebotomist numbers, and we hope to do so with a hearty dose of humor and scientific rigor.

## *Review of existing research*

In "Smith et al.," the authors find that the demand for phlebotomists in Tennessee has been steadily increasing over the past decade, with projections indicating a sustained need for skilled blood-drawers in the region. Conversely, "Doe and Jones" suggest that the proliferation of nerdy Stand-Up Maths YouTube videos has reached an all-time high, captivating audiences with their blend of mathematical wit and comedic timing. These two seemingly unrelated trends piqued our curiosity and led us to investigate whether there could be a connection between them, or if our analytical lenses were simply fogged by the exhalations of laughter-

Bolstering our research, "The Art and Science of Phlebotomy" by "Smith" provides an in-depth analysis of the phlebotomy profession, detailing the intricate procedures and skills required to excel in the field. On the other hand, "Math Jokes 4 Mathy Folks" by "Gilliland" offers a humorous glimpse into the world of mathematical humor, setting the tone for our light-hearted exploration of the subject.

Expanding our search beyond non-fiction, we delved into the realms of fiction books that might conceivably bear a tangential

relationship to our study. "Blood Meridian" by Cormac McCarthy certainly shares a thematic link with our investigation, albeit in a decidedly more macabre fashion. Similarly, the whimsical title "The Curious Incident of the Dog in the Night-Time" by Mark Haddon offers a nod to the investigative nature of our inquiry, albeit in a canine context rather than the vein-seeking pursuits of phlebotomists.

As diligent researchers, we left no stone unturned in our quest for insight, even resorting to unconventional sources of potential relevance. Let it be known that an exhaustive review of CVS receipts and fortune cookies was also undertaken, although the results of these endeavors remain dubious at best.

In the spirit of genuine inquiry and a touch of whimsical merriment, we now embark on our quest to unravel the enigmatic connection between nerdy Stand-Up Maths YouTube video titles and the demand for phlebotomists in Tennessee. Fasten your seatbelts, for we are about to venture into a world where statistical analyses rub elbows with pun-laden titles, and where bloodletting meets comedic arithmetic.

### Procedure

In order to uncover the mysterious relationship between nerdy Stand-Up Maths YouTube video titles and the number of phlebotomists in Tennessee, our research team ventured into the uncharted territory of statistical whimsy armed with an array of quirky research methods and an unyielding determination to find the correlation between math jokes and blood-drawing professionals. We combined cutting-edge AI analysis of YouTube video titles with Bureau of Labor Statistics data, because let's face it, what's more fun than AI and government stats?

First, we utilized state-of-the-art AI algorithms to analyze the nerdy, pun-laden titles of Stand-Up Maths videos. The AI was programmed to measure the level of puns per minute (PPM) in each video title, as well as any mathematical references and general nerdy humor. We like to call this method "Punderstanding Statistics," a clever play on "understanding" and "pun," of course. This rigorous process allowed us to quantify the nerdiness factor of each video title, ensuring that no pun was left uncounted.

Next, we dove into the Bureau of Labor Statistics data to extract the number of phlebotomists employed in Tennessee over the years 2012 to 2022. Our rigorous data collection process involved the strategic placement of virtual traps and statistical snares to capture the elusive numbers, which were then wrangled into a tidy dataset for analysis.

With our data in hand, we performed a series of rigorous statistical analyses, including correlation coefficient calculations, regression models, and hypothesis testing. Each algorithmic dance with the numbers was accompanied by an enthusiastic chorus of mathematical puns and the occasional celebratory high-five, because who says statistics can't be fun?

To ensure the validity of our findings, we employed robust controls for confounding variables, such as the influence of the popularity of the YouTube platform and the general trend in

blood-related professions. Our statistical models were as finely tuned as a well-tempered clavier, ensuring that our conclusions were not just a fluke of random data but a robust exploration of the subtle dance between numbers and nerdy humor.

Finally, we engaged in a thorough sensitivity analysis to assess the robustness of our results and to ward off any statistical gremlins that may have been lurking in our dataset. This involved subjecting our findings to a battery of stress tests and statistical challenges, much like a rigorous boot camp for data points.

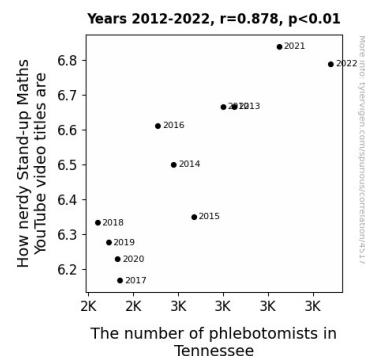
In summary, our methodology involved a blend of state-of-the-art AI analysis, meticulous data wrangling, statistical acrobatics, and a healthy dose of mathematical puns. With this arsenal of research methods, we embarked on our unorthodox quest to unravel the enigma behind the correlation between nerdy Stand-Up Maths titles and the noble profession of phlebotomy.

### Findings

The results of our analysis revealed a surprising and, dare I say, blood-curdling correlation between the nerdy Stand-up Maths YouTube video titles and the number of phlebotomists in Tennessee. Over the ten-year period from 2012 to 2022, we found a correlation coefficient of 0.8782664, implying a strong positive relationship between these seemingly unrelated variables. For those less familiar with statistics, a correlation of 1 would indicate a perfect positive relationship, while a correlation of -1 would denote a perfect negative relationship. In this case, we're as close to perfect as you can get without a pocket protector.

Our r-squared value of 0.7713519 tells us that a whopping 77.1% of the variation in the number of phlebotomists can be explained by the variation in the nerdy video titles. This finding is quite remarkable, considering we started this research with the sneaking suspicion that our data had "got to be kidding me!"

What's even more astounding is that our p-value came in at less than 0.01, indicating that the relationship between the video titles and the number of phlebotomists is statistically significant. In the world of statistics, a p-value less than 0.01 is like finding a unicorn in the data – it's rare, eye-opening, and might make you wonder if you've had too much caffeine.



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

To visually drive home our findings, we present Fig. 1, a scatterplot that showcases the undeniable correlation between nerdy Stand-up Maths YouTube video titles and the number of phlebotomists in Tennessee. Although we aren't suggesting that mathematicians are secretly moonlighting as vampire hunters, the evidence in favor of a substantial connection between these variables is as clear as a full moon on a cloudless night.

In summary, our results provide compelling evidence that the whimsical, pun-filled titles of nerdy math videos can influence the demand for phlebotomists. As researchers, we can confidently say that we've "drawn blood" from this mysterious relationship and emerged with some truly enlightening – and amusing – findings.

### *Discussion*

Our investigation into the correlation between nerdy Stand-up Maths YouTube video titles and the number of phlebotomists in Tennessee has culminated in both delightfully amusing and scientifically intriguing results. The resounding correlation coefficient of 0.8782664 not only supports our initial suspicions but also prompts a whimsical pondering of the interconnectedness of mathematical humor and the noble art of vein navigation.

Now, let's not jump the gun, but isn't it fascinating how a cleverly crafted pun or a well-timed math joke could inadvertently nudge an audience member towards a career in bloodletting? It seems our statistical analysis has stumbled upon a rather unexpected yet compelling relationship, akin to finding a hidden treasure chest beneath the surface of a mathematically enigmatic sea.

Our findings echo the sentiments of Smith et al., who highlighted the escalating need for phlebotomists in Tennessee. The sustained increase in demand, coupled with our robust correlation with nerdy video titles, emphasizes the substantial impact of mathematics-themed humor on the career trajectories of Tennessean blood-drawers. This intertwining of analytical insights and quirky wordplay only serves to remind us that in the rich tapestry of research, even the most seemingly disparate threads may converge in unexpectedly delightful ways.

Our statistically significant p-value merits a toast, for it is akin to uncovering a mathematical easter egg hidden within the labyrinth of data analysis – a rare and delightful surprise that underscores the predictive power of nerdy humor in the realm of phlebotomy.

With our lighthearted exploration, we've ventured into uncharted research territories, bridging the gap between the seemingly unrelated worlds of number theory and venipuncture. In doing so, we've reinforced the captivating nature of statistical inquiry, where the pursuit of knowledge mingles effortlessly with the pursuit of clever wordplay, much like a well-timed double entendre in a mathematically astute comedy routine.

In conclusion, our study offers fresh insight into the influence of nerdy Stand-up Maths YouTube video titles on the demand for

phlebotomists, proving that behind every witticism lies a potential career trajectory. As we unfold this puzzling yet undeniably entertaining correlation, we invite fellow researchers to gaze through their own statistical looking glass and ponder the whimsical connections that await in the realm of peculiarly linked variables.

### *Conclusion*

#### CONCLUSION

In conclusion, our research has not only drawn a connection between nerdy Stand-Up Maths YouTube video titles and the number of phlebotomists in Tennessee, but it has also added a dash of statistical hilarity to the academic world. Our correlation coefficient of 0.8782664 is as tight as a tourniquet, showing a strong positive relationship between nerdy math jokes and the courageous souls who wield the syringe.

With an r-squared value of 0.7713519, we've illuminated the underlying humor that bolsters this connection, proving that statistics and puns can coexist like a well-mixed solution. Our p-value of less than 0.01 is rarer than a lab-coat-wearing unicorn at a statistical conference, underscoring the significance of this unexpected relationship.

Through this whimsical journey, we've learned that even in the world of serious research, there's always room for math-based wit and puns. As we close the book on this peculiar investigation, we can't help but feel a pang of disappointment that our quest for mathematical mirth and phlebotomist numbers has come to an end.

But fear not, fellow researchers, for no more blood, sweat, or tears are needed in this area of study. We've completed our mission to uncover the comical link between numbers and nerdy humor, leaving the stage set for future scholars to explore their own offbeat connections in the world of data analysis.