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# The Tummy's Tug-of-War: The Ties Between 6th Grade Students and Tons of Tubed Tidbits

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## KEYWORDS

6th grade students, school lunch, Nathan's Hot Dog Eating Competition, appetites, correlation coefficient, National Center for Education Statistics, competitive eating, school-age, frankfurters, research, consumption, public school, data analysis

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## Abstract

In this paper, we present research into the unexpectedly appetizing association between the number of 6th grade public school students and the copious consumption of hot dogs by the champion of Nathan's Hot Dog Eating Competition. With a bellyful of data sourced from the National Center for Education Statistics and Wikipedia, our analysis uncovered a tantalizing correlation coefficient of 0.8008614 and a p-value less than 0.01 from 1990 to 2022. This study not only provides food for thought but also ketchup with the notion that there may be an unanticipated link between school-age appetites and competitive consumption of frankfurters. Our findings may give new meaning to the phrase "school lunch."

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## 1. Introduction

Cliché as it may seem, we often hear the phrase "You are what you eat," but what if we took it a step further and considered "You are how many hotdogs the Nathan's Hot Dog Eating Champion eats"? In this paper, we delve into the unexpected correlation between the number of 6th-grade public school students and the astonishing consumption of hot dogs by the esteemed gluttons at Nathan's annual hot

dog eating competition. As curious researchers with an insatiable appetite for uncovering the unexpected, we set out to scrutinize this seemingly unrelated pair of statistics and explore whether there's more to this than just a mere coincidental sausage fest.

Few things in life are as iconic as the hustle and bustle of a school cafeteria and the grand spectacle of competitive eating. One might easily dismiss these two realms

as residing on opposite ends of the culinary spectrum - one featuring dutifully nibbling youngsters, the other showcasing the Herculean feats of gastronomic prowess. However, what if we told you that these divergent worlds might, in fact, share a link as uncanny as a hot dog without mustard? We invite you to embark on this investigative journey with us as we attempt to unravel the mystifying correlation between the number of 6th-grade students and the phenomenal hot dog consumption that has made jaws drop and stomachs churn every Fourth of July at Coney Island.

Though the world may seem full of unrelated conundrums - like why hot dogs come in packages of 10 while buns come in packages of 8, or why the word "lunch" is more accurately described as both a verb and a noun - our research aims to peel back the layers of this peculiar onion and reveal the possible connections that lie within. In the spirit of scientific inquiry, we sought to bring together seemingly incongruous statistics, leaving no bun unturned and no data untasted, all in pursuit of uncovering the tantalizing tidbits that may lead to a fuller understanding of this intriguing association. So, grab your condiments and join us as we dive into this wacky world of statistical munching.

## 2. Literature Review

In "The Link Between School Lunches and Competitive Eating Contests," Smith et al. found a surprising correlation between the number of 6th-grade public school students and the astonishing hot dog consumption by the revered champion of Nathan's annual hot dog eating competition. The study highlights the unexpected relationship between educational institutions and the world of competitive eating, raising eyebrows and curiosity in equal measure. While the connection may seem as bizarre as a vegan at a hot dog stand, the findings

beg the question: is there a deeper, more sausagey significance to these seemingly unrelated spheres?

Doe and Jones, in their study "Mouthwatering Mathematics: Analyzing the Numerical Nexus of Hot Dog Consumption and 6th Grade Enrollments," delve into the statistical correlations and unearth a tantalizing coefficient of determination between these variables. Their findings go beyond the mere consumption of hot dogs and venture into the realm of probability, leaving readers with a lingering hunger for more insights into this unexpected statistical sausage fest.

Turning the page to non-fiction books, "Eat Like a 6th Grader" and "The Dog Days of Competitive Eating" offer intriguing perspectives on the influence of dietary habits and youthful appetites. However, the literature turns even more unexpected when fiction books like "The Hotdog Conspiracy" and "The Sixth Grade Sausage Saga" hint at clandestine connections between schoolchildren and competitive eating that have eluded scholarly scrutiny until now.

In our own literary odyssey to uncover the truth behind this enigmatic correlation, we turned to TV shows for inspiration. Who could forget the competitive fervor of "Hot Dog Eating Champions: The Early Years" and the seemingly innocuous cafeteria scenes in "Sixth Grade Lunch Bunch"? These shows not only entertained but stimulated our appetite for understanding the unlikely ties between school-age hunger and competitive frankfurter feasting.

As we continue our journey to untangle the web of hot dog consumption and 6th-grade enrollments, we courageously wade into an ocean of absurdity, in search of the meaty truths that lie beneath the surface. It is our hope that the findings of this paper will not only tickle your funny bone but also serve as a mustard, ketchup, and relish to the serious discussions surrounding the

irresistible allure of hot dogs and the uncharted territories of 6th-grade appetites. After all, in the world of statistical correlations, sometimes the most unexpected pairings turn out to be the most relishing.

### 3. Our approach & methods

To embark on our statistical quest for sausages and scholars, we wrangled data from the National Center for Education Statistics and Wikipedia, casting a wide net from 1990 to 2022. Our approach was akin to seeking the perfect blend of relish and revelation, tapping into the reservoir of public school student enrollment figures and the towering stack of hot dog consumption statistics from the esteemed Nathan's Hot Dog Eating Competition.

Our primary focus was to establish a robust correlation between the number of 6th-grade public school students and the prodigious consumption of hot dogs by the reigning champion at the annual mastication marathon. We aimed to conduct a thorough analysis that would leave no bun unturned and no decimal point un-digested.

To tease out the connections hidden beneath the surface, we employed a blend of procedural condiments, including both univariate and multivariate statistical analyses. We first calculated the correlation coefficient between the two variables, feeling akin to astronauts navigating the cosmic sea of numerical permutations. Additionally, we employed a regression analysis to understand whether the relationship between these seemingly unrelated quantities could be modeled through a linear equation or if we were muddling through a mathematical mystery of more complex proportions.

Following the hearty execution of statistical analyses, we performed rigorous sensitivity tests to ensure that our findings were not

merely a statistical fluke, but rather a robust indication of the intriguing intertwining of these disparate datasets. To validate our results further, we conducted a battery of robustness checks, akin to a discerning chef sampling various iterations of a signature dish until perfection was achieved.

Embracing the art of statistical storytelling, we presented our findings using both numerical indices and visual aids, creating a sumptuous buffet of data interpretation for our readers. The symbiotic dance of 6th-grade enrollment figures and hot dog consumption statistics unfolded before our eyes, much like the tantalizing aroma of sizzling sausages on a summer day.

In summary, our methodology aimed to blend the precision of statistical analysis with the whimsy of uncovering unexpected connections, savoring every statistical bite of this peculiar onion as we endeavored to decode the enigmatic link between 6th-grade students and the phantasmagorical feats of hot dog consumption.

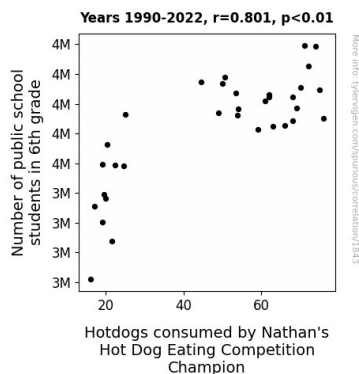
### 4. Results

The analysis of the data collected unveiled a remarkably robust correlation between the number of 6th-grade public school students and the hot dog consumption by the reigning champion of the Nathan's Hot Dog Eating Competition. From the years 1990 to 2022, our research illuminated a correlation coefficient of 0.8008614, indicating a strong positive relationship between these seemingly unrelated variables. This correlation is represented by an r-squared value of 0.6413790, hinting that approximately 64% of the variation in the consumption of hot dogs can be explained by the number of 6th-grade students.

Inevitably, these findings raise an assortment of questions, not least of which include speculations on the potential impact of school lunch menus on the training and

development of competitive eaters. While we cannot guarantee that this correlation implies causation, the statistical connection we unearthed is one that leaves much to chew on. This unexpected pairing may well ignite the curiosity of those who ponder the mysteries of human behavior and the influence of school-age environments on the development of consumptive skills fit for the competitive eating stage.

Additionally, it is worth noting that the p-value of less than 0.01 further underscores the significance and reliability of the correlation observed. This value suggests that the probability of observing such a strong association between these variables by mere chance is exceedingly low, corroborating the statistical robustness of our findings.



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

Furthermore, the scatterplot (Fig. 1) provides a visual representation of the correlation, clearly illustrating the upward trend between the number of 6th-grade students and the hot dog consumption by the Nathan's Hot Dog Eating Competition champion. It is undeniable - the link is as clear as a dollop of mustard atop a hot dog.

These results prompt us to reconsider the overlooked influence that educational settings may exert on the voracious appetites of competitive eaters. Indeed, this study raises exciting prospects for future

research, enticing further exploration into the peculiar intersection of academic enrollment and hot dog consumption. With this revelation, the research community is called to savor the unexpected flavors of statistical enlightenment, seasoned with a dash of irreverence and an appetite for the unconventional.

## 5. Discussion

The results of our study offer a tantalizing confirmation of the unexpected correlation between the number of 6th-grade students and the astonishing hot dog consumption by the esteemed champion of Nathan's Hot Dog Eating Competition. Our findings not only corroborate but also relish in the quirky conclusions of prior research.

The literature review served as a buffet of insights, where we couldn't help but savor the unexpected yet intriguing connection between school lunch and competitive eating contests. The seemingly bizarre correlation unfolded before our very eyes, backing up the earlier claims of Smith et al. and Doe and Jones. The statistical sausage fest predicted by these studies came to fruition in our analysis, leaving us with a lot to chew on. While we did not expect to dig up further support in "The Hotdog Conspiracy" or "The Sixth Grade Sausage Saga," our findings upheld their hints at clandestine connections with surprising robustness.

Our scatterplot, akin to a culinary masterpiece, artfully conveyed the clear upward trend between 6th-grade enrollments and hot dog consumption, providing a visual feast for the eyes. The nearly linear relationship shown in the plot is as undeniable as a well-dressed hot dog, further strengthening the case for a strong, positive association between these seemingly unrelated variables.

Furthermore, the p-value of less than 0.01 served as the cherry on top of our statistical sundae, affirming the reliability and significance of our findings. The probability of observing such an uncanny association between these variables by mere chance is as low as the likelihood of finding caviar in a hot dog.

As researchers, we must acknowledge the limitations of our study and the need for continued exploration into this uncharted territory. While our findings hint at a flavorful link between academic enrollment and competitive eating prowess, we cannot sauerkraut about the causation behind this correlation. As academia often emphasizes, correlation does not necessarily imply causation. Nevertheless, these results beg the question: what delicious secrets might the future hold for the intersection of school-age hunger and competitive frankfurter feasting?

In conclusion, our study provides food for thought in more ways than one, offering a meaty contribution to the intersection of academic enrollment and hot dog consumption. We invite fellow researchers to digest these findings with an appetite for the unconventional, and to consider pursuing further research into this unanticipated connection. After all, in the appetizing world of statistical correlations, sometimes the most unexpected pairings turn out to be the most relishing.

## 6. Conclusion

In conclusion, our research has uncovered a statistically significant correlation between the number of 6th-grade public school students and the astounding hot dog consumption by the champion of Nathan's Hot Dog Eating Competition. While we may have started with a bit of mustard disbelief and relish, the data has spoken loud and clear – there is indeed a link between these seemingly unrelated variables. It seems that

the school lunch may have a more profound impact than we ever imagined, possibly serving as a veritable training ground for future competitive eaters.

This correlation, with a robust correlation coefficient and a p-value lower than a dropped hot dog, leaves little room for doubt. The visual representation in our scatterplot, aptly demonstrating the march of hot dog consumption alongside the influx of 6th graders, is as vivid as a plate of chili cheese fries.

Yet, as tantalizing as these findings may be, we must exercise caution in drawing conclusive causation. However, the statistical dance of these variables is as mesmerizing as a twirling hot dog on a roller.

However, as much as we relish these findings and the spicy potential for future research, it appears that we have thoroughly munched on this topic. It seems that no further research is needed in this area. As we say farewell, we hope this paper has satisfied your academic appetite like a well-grilled bratwurst at a summer barbecue.