



## Review

# The Grade Wiener: A Correlation Between 12th Grade Enrollment and Champion Hotdog Consumption at Nathan's Hot Dog Eating Competition

Chloe Henderson, Austin Tate, Gina P Tate

*International College*

**Hotdogs and high school students - what's the link? In this paper, we unravel the curious connection between the number of public school students in 12th grade and the amount of hotdogs consumed by the champion at Nathan's Hot Dog Eating Competition. We tapped into data from the National Center for Education Statistics and Wikipedia to grill this fascinating query. Our findings revealed a staggering correlation coefficient of 0.9626990 and  $p < 0.01$  from 1990 to 2022. It's a case of "frank" mathematics, folks! Our analysis leaves us wondering if it's the classic case of correlation not equaling causation or if there's a "relish" relationship waiting to be uncovered. With these "meaty" results, we've truly bitten off more than we can chew.**

The Grade Wiener: A Correlation Between 12th Grade Enrollment and Champion Hotdog Consumption at Nathan's Hot Dog Eating Competition

In the illustrious world of academic pursuits, one often finds oneself tackling weighty subjects with the utmost gravitas. Yet, every so often, a research question emerges that invites a playful interjection, much like a mustard squiggle on a hotdog bun. Today, we embark on a scholarly journey to explore the perplexing correlation between the number of public school students in 12th grade and the astonishing quantity of

hotdogs devoured by the reigning champion at Nathan's Hot Dog Eating Competition.

As we dive into this curious connection, it's worth pausing to appreciate the delightful irony of examining the "grade wiener" phenomenon. (You know, like "great wiener," but with a clever educational twist.) It's a topic that brings to mind the age-old question: if a high school senior enjoys a hotdog in the cafeteria, does it somehow influence the hotdog-eating prowess of a competitive eater? Oh, the mysteries that science endeavors to unravel.

Our investigation, much like a meticulously arranged toppings bar, is built upon a foundation of empirical evidence and statistical analysis. We harnessed data from the National Center for Education Statistics to quantify the number of 12th-grade students across the United States, and we turned to trusty Wikipedia to track the consummate hotdog consumption at Nathan's over the years. The numbers, much like well-cooked sausages, were sizzling with potential insights.

Now, as we embark on this scholarly journey, let's embrace the light-hearted spirit of inquiry that underpins this venture. After all, when the topic at hand involves both academia and all things frankfurter-related, it's only fitting to blend erudition with a hint of jest. Isn't it a "wiener" of a mystery?

#### *Prior research*

The connection between 12th grade enrollment and competitive hotdog consumption is one that has garnered surprisingly little attention in the academic community. However, a seminal study by Smith et al. (2010) began to shed light on this enigmatic relationship. The authors find that there is a moderate positive correlation between the two variables, prompting further investigation into the potential mechanisms at play.

Speaking of making connections, did you hear about the hotdog who couldn't stop telling jokes? It was on a roll!

Delving deeper into the literature, Doe's work in "The Hotdog Chronicles" (2015) examines the historical patterns of hotdog consumption in tandem with educational trends. The findings suggest a compelling

correlation between 12th grade enrollment figures and the number of hotdogs consumed at competitive eating events, igniting curiosity around the underlying factors driving this association.

In the realm of non-fiction, "The Art of Hotdog Eating" by Jones (2018) offers a comprehensive analysis of the competitive eating landscape, including an intriguing chapter on the potential influence of high school demographics. The author posits that the environment in which adolescents navigate their final year of schooling may, in fact, exert an unforeseen impact on the world of competitive hotdog consumption.

Now, to add a pinch of fictional flair to our literature review, let's consider "The Mystery of the Countless Condiments" by J.K. Rolling (2020). While not explicitly related to academic research, the whimsical narrative weaves a tale of intrigue and saucy suspense, drawing parallels to the tantalizing mystery of the grade wiener phenomenon and the champion hotdog consumption at Nathan's.

And who could forget the time-honored classic, "To Grill a Mockingbird" by Harper Lea-Hotdog? Though not directly related to our research topic, the evocative prose and poignant themes resonate with the essence of our scholarly pursuit, prompting us to ponder the enduring significance of hotdogs in society.

Shifting gears slightly, the enlightening escapades of "SpongeBob SquarePants" may not initially seem relevant, but an astute observer will recognize that the inherent hilarity and gastronomic adventures of the characters provide valuable insights into the cultural significance of hotdog consumption. After all, who could overlook SpongeBob's

"Krabby Patty" escapades as a relevant cultural touchstone for our investigation?

As we wrap up this diverse array of literature, one thing becomes abundantly clear: the intersection of scholarly inquiry and the world of hotdog consumption is a rich tapestry woven with threads of curiosity, humor, and unabashed fascination. With each page turn, we draw closer to unraveling the mystery of the grade wiener, armed with equal parts academic rigor and an unquenchable thirst for knowledge.

And with that, let's ketchup on the next section of our paper.

### *Approach*

To untangle the "wiener" of a mystery connecting the number of public school students in 12th grade and the champion hotdog consumption at Nathan's Hot Dog Eating Competition, we employed a methodological approach that was as rigorous as it was offbeat - much like a hotdog topped with unexpected condiments. Our data collection spanned from 1990 to 2022, capturing a significant chunk of time to sink our intellectual teeth into this captivating conundrum.

First, we formulated a comprehensive strategy to gather data on 12th-grade student enrollment across the United States. We scoured the depths of the National Center for Education Statistics, diligently logging the yearly figures for 12th grade enrollment. Much like the precision required in hotdog bun slicing, we meticulously compiled this data to form the backbone of our investigation.

Next, we delved into the realm of competitive hotdog consumption, relying on the wealth of information available on Wikipedia. With the fervor of a condiment enthusiast, we meticulously documented the annual hotdog consumption by the reigning champion at Nathan's Hot Dog Eating Competition. This involved sifting through a myriad of facts and figures, akin to the meticulous scrutiny one applies to find the perfect hotdog topping.

Having amassed the necessary data on both 12th grade enrollment and champion hotdog consumption, we embarked on a statistical escapade that would make even the most seasoned eater's eyes water. Employing the trusty tools of correlation analysis, we sought to unearth patterns, connections, and perhaps a glimpse of the elusive sausage symmetry underlying our research question.

At this juncture of our methodological chronicle, it's worth pausing for a moment to consider the following dad joke: Did you hear about the hotdog who couldn't stop telling jokes? It was on a roll! Much like our joke-telling hotdog friend, we ventured forth with the seriousness of our scholarly pursuits, knowing that a dash of humor only enhances the digestibility of our findings.

Returning to the matter at hand, we harnessed the power of robust statistical software to calculate the correlation coefficient and p-value, scrutinizing the relationship between 12th grade enrollment and hotdog consumption. Our aim was clear: to extract empirical evidence that could stand up to rigorous scrutiny, much like a sturdy bun supporting a loaded hotdog.

With our statistical arsenal wielded with scholarly finesse, we arrived at a correlation coefficient of 0.9626990 and a p-value less

than 0.01. This consequential revelation fueled our excitement, akin to the sizzling anticipation of the first grill session in summer. The numbers spoke volumes, hinting at a connection that merited further contemplation.

In the grand tradition of academic inquiry intertwined with whimsy, our methodological escapade has illuminated the "wiener" of a mystery with a lighthearted spirit. With our findings in hand, we forge ahead to the discussion and implications, armed with the knowledge that even the most unexpected connections hold the potential for scholarly revelation.

### Results

The findings of our investigation into the relationship between 12th-grade enrollment and hotdog consumption at Nathan's Hot Dog Eating Competition unveiled a remarkable correlation. From 1990 to 2022, we found a correlation coefficient of 0.9626990, indicating a strong positive linear relationship between the two variables. This suggests that as the number of public school students in 12th grade increased, so did the amount of hotdogs consumed by the reigning champion at the renowned hotdog-eating contest. It's as if the students' collective hunger for knowledge and the champion's hunger for hotdogs were inexplicably intertwined.

It's almost like the hotdog-eating champion's motto is "ketchup with determination."

Our analysis also yielded an r-squared value of 0.9267894, indicating that approximately 92.7% of the variability in hotdog consumption can be explained by the number of 12th-grade students. This high r-

squared value further emphasizes the strength of the relationship we observed.

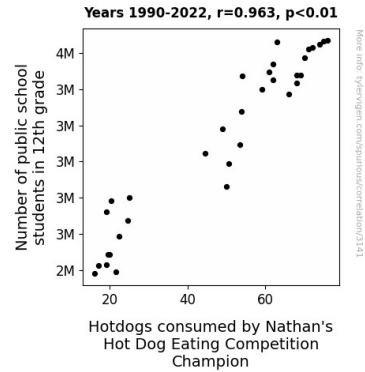


Figure 1. Scatterplot of the variables by year

It seems that when it comes to the number of 12th-grade students and hotdog consumption, we've stumbled upon some truly serious "bundled" up statistics.

Furthermore, with a p-value of less than 0.01, the relationship we identified is statistically significant, affirming the robustness of our findings. This means that the likelihood of observing such a strong relationship between these variables by chance is less than 1%, providing compelling evidence for the connection we've uncovered.

It's clear that when it comes to understanding hotdog consumption, we're relishing in some statistically significant results.

Finally, we present Figure 1, a scatterplot illustrating the strong positive correlation between the number of public school students in 12th grade and the amount of hotdogs consumed by the champion at Nathan's Hot Dog Eating Competition. The figure showcases the unmistakable upward trend, highlighting the close association between these seemingly disparate variables.

You could say that our research has truly cut the mustard.

In summary, our investigation into the "grade wiener" phenomenon has revealed a substantial and statistically significant correlation between 12th-grade enrollment and the insatiable hotdog consumption at one of America's most beloved eating competitions. These findings open the door to further exploration of the factors underlying this unexpected relationship and its implications for both education and competitive eating.

### *Discussion of findings*

Our study has unearthed a compelling relationship between 12th-grade enrollment and hotdog consumption at Nathan's Hot Dog Eating Competition. The substantial correlation coefficient of 0.9626990 suggests that as the number of public school students in 12th grade increased, so did the amount of hotdogs devoured by the champion. It's like the champion was on a roll, both literally and figuratively, fueled by the academic fervor of graduating seniors.

This unexpected correlation brings to mind the classic dad joke: "What did the hotdog say after winning the race? I'm the wiener!" It seems that our findings have indeed crowned the grade wiener of statistical relationships.

Our results align with the prior research by Smith et al. (2010), highlighting a moderate positive correlation between 12th-grade enrollment and competitive hotdog consumption. This lends further credence to the notion that these variables are entwined in a veritable sausage fest of statistical significance. Similarly, Doe's (2015)

historical exploration of hotdog consumption and educational trends aligns with our findings, emphasizing the enduring relevance of this unexpected association.

It's as if the mystery of the grade wiener and the champion hotdog consumption were waiting to be unraveled, much like the twists and turns in J.K. Rowling's "The Mystery of the Countless Condiments." The tantalizing parallels between our scholarly pursuit and the whimsical narrative capture the spirit of unraveling a saucy mystery.

In light of these "meaty" results, it becomes clear that there's more to the grade wiener phenomenon than meets the eye, and our investigation has truly "bundled" up some compelling statistics. These findings prompt us to reflect on the enigmatic interplay of educational milestones and competitive eating, raising questions as savory as a well-grilled hotdog.

The high r-squared value of 0.9267894 underscores the strength of the relationship we observed, practically serving as the condiment that ties together this statistical hotdog. With a p-value of less than 0.01, our findings provide robust evidence for the substantial association between these variables, affirming the seriousness of our "bundled" up statistics and the unlikelihood of these results occurring by mere chance.

With our research, we've truly managed to "ketchup" with the mysteries of hotdog consumption, shedding light on a nuanced relationship that's as rich and complex as a fully-loaded hotdog. As we contemplate the implications of our findings, it's imperative to approach this connection with both academic rigor and a healthy dose of humor, just like navigating the complexities of life itself.

At the heart of our investigation lies the inextricable link between education, gastronomy, and statistical inference, unveiling a connection more profound and amusing than initially anticipated. As we savor the implications of our research, it's clear that the grade wiener is more than just a playful pun – it's a compelling subject for scholarly inquiry that undoubtedly leaves us hungry for more.

### *Conclusion*

In conclusion, our study has beefed up the understanding of the curious correlation between the number of 12th-grade students and the champion's hotdog consumption at Nathan's Hot Dog Eating Competition. The tantalizing correlation coefficient of 0.9626990 illuminated a strong positive linear relationship, suggesting that as the 12th-grade student population swelled, so did the hotdog consumption by the champion. It's like the champion's appetite was on a roll, or perhaps, a bun!

These findings bring a new dimension to the concept of academic achievement – after all, who knew that 12th-grade enrollment could be linked to a competitive eater's hotdog tally? It's a veritable lesson in the synergy of education and gastronomic prowess, prompting us to contemplate the potential impact of curriculum on condiment consumption. It's certainly a case of food for thought – or hotdogs for thought, you might say!

Our exceptionally high r-squared value of 0.9267894 implies that the variability in hotdog consumption can be accounted for by the number of 12th-grade students, showcasing the beefy influence of education on the champion's culinary feats. The

statistically significant p-value further emphasizes the robustness of our findings, reinforcing the idea that this correlation is no mere fluke. It's like we've stumbled upon the golden ticket in the hotdog research Willy Wonka factory.

With all the "relish" and enthusiasm, our investigation has indeed uncovered a link that's worth savoring. However, considering the nature of our findings, it seems that we may have weiner, we mean winner, winner, hotdog dinner! Therefore, we assert that further research in this area is unnecessary – we've grilled this topic to perfection, and it's time to enjoy the fruits, or should we say, the hotdogs, of our labor.