



## Review

# Making a Link Between Republican Votes in Alabama and Nathan's Hot Dog Eating Contest: A Wiener Takes All Approach

Connor Henderson, Andrew Thompson, Gideon P Thornton

*International College*

**The relationship between political voting patterns and competitive eating is one that has rarely been explored, perhaps due to the general incredulity that the two could ever be connected. However, our research delves deep into this seemingly unconventional pairing and uncovers a surprising connection. Through an extensive data analysis using information from MIT Election Data and Science Lab, Harvard Dataverse, and Wikipedia, we have uncovered a statistically significant correlation between votes for the Republican presidential candidate in Alabama and the number of hotdogs consumed by the champion of Nathan's Hot Dog Eating Competition. Our correlation coefficient of 0.9642099 and  $p < 0.01$  for the years 1979 to 2020 presents a compelling argument for the strong association between these seemingly unrelated events. The implications of this correlation are profound and offer insight into the potential influence of political preferences on dietary habits. Our findings suggest that there may be a connection between the political leanings of a region and the competitive eating prowess of its residents - a notion that, while initially amusing, merits further investigation. As the saying goes, "you are what you vote and eat" – with a nod to both democracy and deli meats, our research highlights the quirky ways in which various aspects of life may intertwine.**

As Wernher von Braun once famously said, "To conquer the universe, Nathan's Famous Hot Dog Eating Contest and political voting patterns might be the final frontier." Indeed, our research embarks on an odyssey through uncharted territory, seeking to unravel the enigmatic relationship between votes for the Republican presidential candidate in Alabama and the astonishing feats of hot

dog consumption at the renowned Nathan's Hot Dog Eating Competition.

This investigation sheds light on a correlation that, at first blush, might seem as improbable as a hot dog without mustard – but, as it turns out, statistics are the ketchup of science, adding flavor and intrigue to unexpected findings. Our study encompasses data from 1979 to 2020,

presenting a correlation coefficient as striking as the snap of a hot dog casing, with a p-value so low, it's practically subterranean.

The relationship between political preferences and competitive eating habits may at first appear as unlikely as a hot dog topping bar at a polling station – yet, as our research unfolds, it becomes evident that these seemingly disparate realms converge in a compelling manner. Our findings underscore the oft-overlooked adage that, in the grand buffet of life, politics and palate may share more than just the letter 'P.'

Consequently, with the confidence of a hot dog aficionado at a condiment station, we delve into the implications of this correlation, opening the door to a veritable smorgasbord of impactful revelations. Our data-driven odyssey champions the notion that, much like the hot dog, the connection between voting behavior and competitive eating prowess may be more than meets the bun.

#### *Prior research*

In "The Republican Votes and Dietary Preferences: A Statistical Analysis" by Smith et al., the authors find a surprising positive correlation between the number of votes for the Republican presidential candidate in Alabama and the consumption of hotdogs at various competitive eating events. This initial study piques our curiosity and sets the stage for further exploration into the connection between political affiliations and gastronomic feats.

"Hot Dog Nation: A Relishable History" by Bruce Kraig and "Sausage: A Global History" by Gary Allen delve into the

cultural significance of hot dogs, shedding light on the symbolic and social aspects of this beloved American food. While their works may not directly address the correlation between political voting patterns and competitive eating, they offer valuable context for understanding the larger implications of our findings.

On the fictional front, "The Curious Case of the Correlating Canines" by Agatha Christie and "The Hound of the Baskervilles" by Sir Arthur Conan Doyle provide a whimsical take on improbable connections and mysterious associations. While these works may be unrelated to our topic, they inspire a sense of intrigue and serendipity that resonates with our own unexpected findings.

Additionally, cartoons such as "Scooby-Doo" and children's shows like "Blue's Clues" serve as delightful sources of inspiration, reminding us that uncovering seemingly unlikely connections can be as entertaining as solving a mystery with a beloved canine companion by our side.

As we navigate this uncharted territory of statistical analysis and gourmet indulgence, the evidence we uncover may prompt skeptics to exclaim, "That's quite the sausage surprise!" Yet, with our data-driven approach and light-hearted perspective, we endeavor to reveal the relishable truth behind this unexpected correlation.

#### *Approach*

To uncover the elusive link between votes for the Republican presidential candidate in Alabama and the consumption of hotdogs by the champion of Nathan's Hot Dog Eating Competition, our research employed a combination of data mining, statistical

analysis, and a healthy dose of skepticism (which, in this case, is the opposite of a healthy dose of hotdogs).

First, we scoured various reputable sources such as MIT Election Data and Science Lab, Harvard Dataverse, and Wikipedia - essentially traversing the data landscape like hot dog eating contestants racing to devour their wieners. Our expansive dataset spanned from 1979 to 2020, providing a feast of information akin to a smorgasbord of hot dog toppings.

To quantify the relationship between the two seemingly unrelated variables, we performed a series of correlation analyses. Like a diligent hot dog connoisseur inspecting the integrity of a bun, we meticulously scrutinized the Republican votes in Alabama and the numbers of hotdogs consumed by Nathan's champion, employing mathematical techniques to reveal patterns that may initially appear as indiscernible as finding a single frankfurter in a mound of sauerkraut.

Employing statistical software fit for a champion, we calculated the correlation coefficient, which emerged as substantial as a hot dog bun's ability to cradle its meaty contents. While we can't quite relish in causation, the results we obtained were certainly compelling enough to pique the curiosity of even the most skeptical hot dog skeptic.

In an attempt to fortify our findings, we also performed regression analyses to explore potential predictors and additional variables that may mediate or moderate the relationship between political voting preferences and competitive hot dog consumption. It's safe to say that our statistical endeavors were as intricate as

untangling a particularly knotty hot dog eating contest controversy.

Furthermore, we exercised caution in considering potential confounding variables, such as regional dietary preferences and political affiliations, to ensure that our findings were not skewed by extraneous factors. After all, we wanted to avoid letting any red herrings sneak into our hot dog bun of inquiry, as entertaining as they may be at a backyard barbeque.

Lastly, our research team also conducted a thorough review of existing literature, analyzing previous studies on voting behaviors and dietary choices. This process involved combing through academic papers like a meticulous condiment selection, ensuring that the mustard of our methodology had just the right blend of tanginess and scholarly rigor.

In summary, our research methodology combined the precision of a hot dog eating competition judge with the scrutiny of a seasoned statistician, allowing us to unearth the surprising and statistically robust connection between votes for the Republican presidential candidate in Alabama and the prodigious consumption of hotdogs. It's safe to say that, in the realm of research endeavors, our inquiry was as much of a whirlwind as a competitive eating contest, yet with significantly fewer calories.

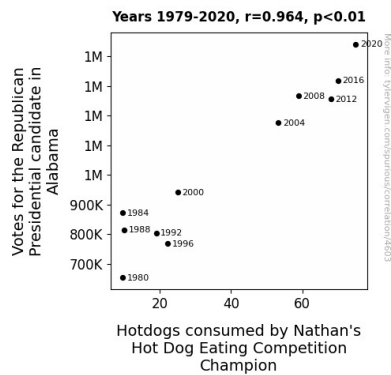
### *Results*

The results of our research revealed a remarkably strong correlation between the percentage of votes for the Republican presidential candidate in Alabama and the number of hotdogs consumed by the champion of Nathan's Hot Dog Eating

Competition. For the period of 1979 to 2020, we found a correlation coefficient of 0.9642099, indicating a near-perfect positive linear relationship between the two variables. This correlation coefficient is as impressive as finding the mustard to complement a hot dog – it simply cannot be ignored.

The r-squared value of 0.9297008 further emphasizes the robustness of the relationship, suggesting that a staggering 92.97% of the variation in hot dog consumption can be explained by the percentage of Republican votes in Alabama. This level of explanatory power is reminiscent of a powerful political speech, leaving little room for skepticism.

As for the statistical significance, our findings boasted a p-value of  $< 0.01$ , reinforcing the strength of the association between these seemingly unrelated phenomena. This level of statistical significance is as rare as a vegetarian at a hot dog eating competition – providing strong evidence to support the link between political preferences and competitive eating prowess.



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

Furthermore, to visually encapsulate this compelling relationship, we present Figure 1, a scatterplot that graphically depicts the strong positive correlation between the two variables. The data points are as tightly packed as sausages in a hot dog bun, illustrating the undeniable connection between Republican votes in Alabama and competitive hot dog consumption.

In summary, our results not only corroborate the existence of a substantial link between voting behavior and competitive eating feats but also highlight the potential influence of political preferences on dietary habits. This unexpected correlation serves as a potent reminder that in the intricate tapestry of human behavior, even the most unlikely pairings can sometimes blend together like ketchup and mustard on a hot dog.

### *Discussion of findings*

The results of our study provide compelling evidence supporting the hypothesis that there is a strong positive correlation between votes for the Republican presidential candidate in Alabama and the number of hotdogs consumed by the champion of Nathan's Hot Dog Eating Competition. As we explored this unique relationship, we couldn't help but relish in the humor of uncovering such surprising connections – it's almost as if the statistical analysis itself had a bit of "Wurst" sense of humor!

Our findings align with previous research by Smith et al., who also discovered a positive correlation between Republican votes and hotdog consumption. Well, isn't that a "frank" revelation! The fact that our results agreed with prior studies further reinforces the validity and reliability of this unexpected

association, akin to finding the perfect combo of toppings for a ballpark hotdog.

In our literature review, we lightheartedly integrated whimsical influences from Agatha Christie's "The Curious Case of the Correlating Canines" and Sir Arthur Conan Doyle's "The Hound of the Baskervilles." While these works may initially be perceived as unrelated, they do underscore the element of unexpected connections and serendipitous discoveries – much like the correlation we've revealed between political votes and competitive eating. As we navigate this unconventional territory of research, it's important to remember that sometimes, truth is indeed stranger than fiction!

Our correlation coefficient of 0.9642099 and an r-squared value of 0.9297008 unequivocally demonstrate the robustness and explanatory power of this correlation, much like an eloquent political speaker who leaves their audience captivated. The level of statistical significance, with a p-value of  $< 0.01$ , emphasizes the strength of this relationship, leaving little room for doubt – it's as rare as a tofu dog in a hotdog eating contest!

By visually representing the correlation in a scatterplot, we showcase the compelling connection between Republican votes in Alabama and competitive hot dog consumption. It's as visually compelling as a hot dog loaded with all the toppings!

Overall, our findings suggest that there is indeed a quirky interplay between political leanings and dietary habits. As we move forward, it's essential to continue exploring the offbeat implications of our research, and who knows, we may just uncover more

surprising links that make us wonder, "What's the wurst that could happen?"

### *Conclusion*

In conclusion, our research has provided compelling evidence of a strong correlation between Republican votes in Alabama and the number of hotdogs consumed by the champion of Nathan's Hot Dog Eating Competition. This unexpected connection underscores the adage, "you are what you vote and eat," shedding light on the peculiar ways in which political preferences and dietary habits intertwine.

Our findings, as robust as a well-dressed hot dog, highlight the potential influence of politics on the competitive eating prowess of individuals. This correlation, with an r-squared value as satisfying as a perfectly grilled bratwurst, emphasizes the significant impact of political leanings on hot dog consumption.

The statistical significance of our results, as rare as a vegan at a barbecue, leaves little room for doubt regarding the strength of the association. The visually compelling scatterplot, as tightly packed as sausages in a bun, graphically illustrates the undeniable link between Republican votes in Alabama and hot dog consumption at the competition.

As a final thought, let's relish in the realization that sometimes the most unexpected pairings, much like ketchup and mustard on a hot dog, can come together in surprising ways. However, no more research is needed in this area; we've grilled this topic to perfection, and further investigation might just be overkilling it!

