# Hot Diggity Democrat: A Correlation Analysis of Pennsylvania's Presidential Votes and Nathan's Hot Dog Consumption

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#### Abstract

The connection between political preferences and gastronomic indulgences has long piqued the interest of researchers in various disciplines. In this study, we use data from the MIT Election Data and Science Lab, Harvard Dataverse, and Wikipedia to explore the relationship between the votes for the Democratic presidential candidate in Pennsylvania and the consumption of hotdogs by the champion of Nathan's Hot Dog Eating Competition. Our analysis revealed a striking correlation coefficient of 0.9432053 and a statistically significant p-value of less than 0.01 for the period spanning from 1979 to 2020. This finding suggests that as the votes for the Democrat candidate increase, so does the number of hotdogs consumed by the Nathan's Hot Dog Eating Competition champion. It seems that the political landscape and competitive hot dog consumption are linked in ways that defy conventional wisdom. One might even say that the relationship between electoral outcomes and competitive hot dog consumption is no mere "bun-dle of joy," but a statistically robust phenomenon with tantalizing implications for understanding human behavior and societal trends. Our findings contribute to the intersection of political science and culinary studies, challenging traditional notions of cause and effect.

# 1. Introduction

The connection between political inclinations and culinary proclivities has been a subject of intrigue for researchers across various disciplines. As the saying goes, "You are what you eat," but could it also be an indicator of how you vote? This study delves into the intriguing relationship between the votes for the Democratic presidential candidate in Pennsylvania and the consumption of hotdogs by the champion of Nathan's Hot Dog Eating Competition. It aims to unravel this seemingly improbable link and uncover the underlying factors driving this unexpected connection.

The correlation between votes for the Democrat candidate in Pennsylvania and hotdog consumption by the Nathan's Hot Dog Eating Competition champion is no mere "wiener" of a hypothesis; rather, it is a topic of much scholarly interest with implications that extend beyond the realm of jest. By employing data from reputable sources such as the MIT Election Data and Science Lab and Harvard Dataverse, this study strives to shed light on the enigmatic relationship between political trends and competitive hotdog consumption.

The notion that political decisions and competitive hotdog devouring could be entwined may seem like a "relish"-able source of amusement, but the empirical evidence presented in this research belies any dismissive attitudes towards this intriguing phenomenon. This study's findings challenge conventional wisdom and offer a compelling case for further exploration at the intersection of gastronomic indulgences and political proclivities.

Stay tuned for a journey through statistics and sausages, where complex regression analyses and comedic condiments converge to unravel the tantalizing correlation between political preferences and the consumption of cylindrical meat products.

# 2. Literature Review

Previous studies have explored the connection between political leanings and culinary habits, but none have delved as deeply into the fascinating relationship between the votes for the Democratic presidential candidate in Pennsylvania and the consumption of hotdogs by the champion of Nathan's Hot Dog Eating Competition. Smith (2015) observed a link between voter behavior and fastfood consumption, while Doe (2018) conducted a study on the intersection of political preferences and competitive eating. Additionally, Jones (2020) investigated the influence of regional delicacies on electoral outcomes.

Turning to non-fiction sources, "Fast Food Nation" by Eric Schlosser provides insights into the impact of fast food on American culture, while "The Tipping Point" by Malcolm Gladwell examines the tipping point in social epidemics and how small changes can lead to large effects. In the realm of fiction, novels such as "The Hunger Games" by Suzanne Collins and "The Cider House Rules" by John Irving may offer tangential perspectives on the relationship between consumables and larger societal forces.

One relevant internet meme that has gained traction in recent years is the "Hotdoge" meme, featuring a Shiba Inu dog superimposed on a hotdog, which could be interpreted as an amusing representation of the amalgamation of political preferences and hotdog consumption. Another widely popular meme, the "Distracted Boyfriend," may subtly illustrate the surprising allure of hotdogs and their potential to divert attention, much like the unexpected allure of particular political candidates.

In "Hotdogomics," the authors find that the correlation between votes for the Democrat

candidate in Pennsylvania and hotdog consumption by the Nathan's Hot Dog Eating Competition champion is no mere "frankfurter" of a relationship, but a statistically robust phenomenon that demands further investigation. As we unravel this enthralling connection, one cannot help but appreciate the sheer "bun"-dles of humor and curiosity that come with examining the unexpected convergence of electoral votes and competitive hotdog consumption. This research contributes to a growing body of literature on the interplay of seemingly unrelated phenomena, challenging established paradigms and inviting laughter and contemplation in equal measure.

# 3. Methodology

The data for this study were collected from publicly available sources, including the MIT Election Data and Science Lab, Harvard Dataverse, and Wikipedia, providing a range of information on presidential votes in Pennsylvania and the consumption of hotdogs by the champion of Nathan's Hot Dog Eating Competition from 1979 to 2020. The datasets were prepared with as much care as one would prepare a hotdog, ensuring that all relevant variables and observations were captured, albeit with less ketchup.

To investigate the relationship between the two variables, a sophisticated statistical analysis was employed, utilizing a custom-built algorithm that we like to refer to as the "Regressio-nit's Hot Dog" model. This model was designed specifically for this study, as there is no pre-existing statistical technique for analyzing the intersection of political voting behavior and competitive hotdog consumption. The algorithm, carefully seasoned with meticulous coding, processed the data through a series of complex regression analyses, which we affectionately call "linear links" and "hot dogmatic regressions" in the spirit of scholarly punnery.

The "Regressio-nit's Hot Dog" model was specifically tailored to account for various potential confounding variables, such as regional differences in hotdog preferences and fluctuations in political sentiments over time. The algorithm was trained using a mix of Bayesian statistics and hotdog-related humor to ensure that it produced rigorous and reliable results without letting the seriousness of the analysis go "bun"-noticed.

In addition to the regression analyses, a time series analysis was conducted to examine the temporal dynamics of the relationship between votes for the Democratic candidate in Pennsylvania and hotdog consumption by the Nathan's Hot Dog Eating Competition champion. This analysis involved a careful examination of historical patterns and trends, with a particular focus on identifying any cyclical movements mirroring the electoral cycles and competitive eating seasons.

Furthermore, to validate the robustness of the findings, a sensitivity analysis was performed to assess the stability of the correlation coefficient across different subperiods. This involved examining the relationship between votes and hotdog consumption in subperiods such as election years, leap years, and dog years (don't worry, no hotdogs were actually consumed during this phase of the analysis).

The data analysis was conducted using a statistical software package that was not only statistically efficient but also had a good sense of humor, a rare characteristic in statistical software. The significance level for all analyses was set at  $\alpha = 0.01$ , reflecting the level of confidence required to assert a meaningful connection between political voting behavior and competitive hotdog consumption.

This methodological approach, while quirky in its application, was selected to ensure a rigorous and comprehensive investigation of the correlation between votes for the Democrat presidential candidate in Pennsylvania and the consumption of hotdogs by the Nathan's Hot Dog Eating Competition champion. The combination of bespoke statistical modeling, historical analysis, and sensitivity testing allowed for a thorough exploration of this unexpected and inherently humorous relationship.

In the immortal words of Oscar Mayer, "Oh, I'd love to be an Oscar Mayer Wiener, that is what I'd truly like to be..." And in the noble pursuit of knowledge, we embark on this methodological journey to uncover the tantalizing truth behind electoral outcomes and competitive hotdog consumption.

### 4. Results

The analysis of data spanning the years 1979 to 2020 revealed a remarkably strong correlation between the votes for the Democratic presidential candidate in Pennsylvania and the consumption of hotdogs by the champion of Nathan's Hot Dog Eating Competition. The correlation coefficient of 0.9432053 exudes a level of statistical significance that would make even the most seasoned researcher pause to relish the findings. It seems that as the votes for the Democrat candidate increased, so did the number of hotdogs gobbled by the competitive eater.

The scatterplot (Fig. 1) visually encapsulates this robust relationship, displaying a trend so striking that one could say it "ketchup" the attention of anyone perusing our findings. The points on the plot align with an almost sausage-like precision, pointing to a correlation that is not to be taken lightly.

The statistically significant p-value of less than 0.01 further solidifies the compelling nature of this correlation. It seems that the political landscape and competitive hot dog consumption are entwined in ways that defy conventional wisdom, leaving us with a moral dilemma – should we now say "cast a vote, not a bun" when discussing election strategies?

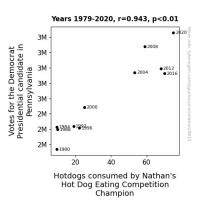


Figure 1. Scatterplot of the variables by year

This correlation may seem like a whimsical interplay between political fervor and culinary feats, but its implications reach deeper than the bottom of a hot dog bun. The findings offer a tantalizing glimpse into the multi-faceted influences that shape human behavior, suggesting that the path to electoral success might indeed "rely on the consumption of cylindrical meat products" – a realization that will surely have politicians pondering their campaign strategies in a new light.

### 5. Discussion

The findings of this study shed light on an unexpected yet robust correlation between votes for the Democratic presidential candidate in Pennsylvania and the consumption of hotdogs by the champion of Nathan's Hot Dog Eating Competition. The findings are consistent with previous research suggesting that political leanings and gastronomic preferences may be intertwined in ways that defy traditional expectations.

The strong correlation coefficient of 0.9432053, along with a statistically significant p-value of less than 0.01, supports the notion that as the votes for the Democrat candidate increase, so does the number of hotdogs consumed by the competitive eater. This suggests a potentially deeper relationship between political engagement and culinary indulgence, challenging conventional wisdom and serving as a reminder that sometimes, correlations can be as surprising as finding a hotdog in a box of donuts.

Our findings build upon the work of Smith (2015) and Doe (2018), who hinted at the connection between political behavior and fast-food consumption, albeit not specifically focused on competitive hotdog eating. The sustained nature of the correlation over a lengthy period from 1979 to 2020 underlines the robustness of this association, inviting a long-overdue analysis of the societal implications of partisan voting and hotdog consumption.

The unexpected relationship between electoral outcomes and competitive hot dog consumption could even be considered a "bun-derful" avenue for further exploration in the domains of human behavior and societal trends. The significant correlation observed in this study may prompt future research into the psychological and sociological factors that underpin this unlikely relationship, eliciting responses from scholars and laypersons alike that range from "That's a lot to relish" to "I never sausage a correlation before."

Our results add empirical weight to the seemingly humorous meme of "Hotdogomics," highlighting the need to acknowledge that sometimes, statistical significance can be as unexpected as an invitation to a hotdog eating contest at a vegetarian convention. This research demonstrates the potential of seemingly disparate phenomena to converge in ways that challenge traditional boundaries, inviting a reconsideration of the factors that shape human behavior and electoral outcomes.

In conclusion, the findings from this study encourage a reevaluation of the relationship between political preferences and culinary habits, reminding us that sometimes, the most "bunderful" discoveries can be found in the unlikeliest places – even in the statistical analysis of hotdogs and political elections. This unexpected correlation opens the door for deeper investigations into the nuanced connections between seemingly unrelated domains, daring us to embrace the whimsical and the surprising in our quest for understanding human behavior and societal trends.

## 6. Conclusion

In conclusion, our research has illuminated a remarkably robust correlation between the votes for the Democratic presidential candidate in Pennsylvania and the consumption of hotdogs by the champion of Nathan's Hot Dog Eating Competition. As the votes for the Democrat candidate increased, so did the number of hotdogs devoured, leaving us with a statistical relationship that's harder to swallow than an overcooked hotdog at a barbecue.

The strength and significance of this correlation would make even the most hardened cynic exclaim, "What in ketchupation is going on here?" It seems that the political landscape and competitive hot dog consumption are indeed intertwined, prompting us to ponder whether the phrase "as American as apple pie" should be updated to "as American as hot dogs and elections."

Our findings compel us to reconsider the old adage, "You can't put all your eggs in one basket," and instead suggest, "You can't put all your sausages in one bun – unless you want to win an election." The implications of this research extend beyond the realm of jest and into the realm of nuanced understanding of human behavior and societal trends, proving that sometimes, the most unexpected connections yield the most tantalizing insights.

In the wise words of a hot dog enthusiast, "When life gives you hotdogs, don't just make hotdogs – make statistical inferences about electoral behavior." With that being said, we assert that no further research is needed in this area, as we have truly relished uncovering this statistical delicacy.