

THE DEMOCRATIC DELIGHT: MIGHTIER MATCH OF ILLINOIS VOTES AND NATHAN'S HOT DOG DEVOURING DOYENS

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As the saying goes, "Politics and hotdogs are both about the wurst!" In this study, we delve into the unconventional correlation between votes for the Democratic presidential candidate in the state of Illinois and the consumption of hotdogs by the champion of Nathan's Hot Dog Eating Competition. With a touch of humor and a dash of statistical analysis, we aim to uncover whether there is a meaty connection between these seemingly unrelated events. Through the meticulous analysis of data from the MIT Election Data and Science Lab and Harvard Dataverse, complemented by the self-proclaimed "reliable" information from Wikipedia, we discovered a surprising correlation coefficient of 0.9443038 and a p-value less than 0.01 for the years spanning 1979 to 2020. It seems that there might be more to this hotdog-democracy dynamic than mere coincidence - perhaps a case of "frankfurter fate," if you will! Could it be that the voters' preference for the Democratic candidate in Illinois influences the reigning hotdog-eating champion's appetite for enjoying these succulent sausages? Or is it simply a statistical fluke that tickles our funny bone? Join us on this adventurous journey through democratic data and dining etiquette to unravel the mysteries of electoral fervor and gastronomic grandeur. In the world of academia, as in hotdog eating contests, sometimes you just have to relish the unexpected connections!

As researchers, we are no strangers to diving into the bizarre and the unexpected in pursuit of scientific inquiry. In the realm of statistical analysis, we often encounter relationships that leave us scratching our heads and muttering, "What in the name of Gaussian distribution is going on here?" Speaking of which, did you hear about the statistician who drowned in a river with an average depth of six inches? He was waist-deep in probability!

In this study, we set out to explore the burgeoning association between the votes cast for the Democratic presidential candidate in Illinois and the impressive feats of hotdog consumption by the illustrious champions of Nathan's Hot Dog Eating Competition. One might be

inclined to inquire, "What does a political preference have to do with devouring hotdogs at a seemingly alarming rate?" Well, dear reader, we aim to unravel this delectable mystery. It seems that democracy and hotdogs have more in common than meets the mustard!

Before we delve into the meaty details of our analysis, it behooves us to consider the historical context of these two disparate phenomena coming together in an unlikely statistical embrace. After all, there's nothing like a good historical backdrop to set the stage for statistical shenanigans. Speaking of stages, did you hear about the probability theory play? It failed to deliver and the audience wasn't able to make heads or tails of it!

The state of Illinois has long been recognized as a political powerhouse, known for its passionate engagement in electoral affairs and equally fervent commitment to its culinary delights. Meanwhile, Nathan's Hot Dog Eating Competition has captured the hearts (and perhaps the arteries) of enthusiasts worldwide, setting the stage for awe-inspiring feats of gastronomic prowess. It's a collaboration worthy of a standing ovation - or maybe just a standing-room-only crowd at the research conference!

Now, let's talk numbers. Our analysis, conducted with the precision of a sommelier selecting the perfect wine, utilized data from the MIT Election Data and Science Lab and Harvard Dataverse, with a sprinkle of information from the much-maligned yet inexplicably reliable Wikipedia. Through rigorous statistical methods, we uncovered a correlation coefficient that would make even the staunchest skeptics raise an eyebrow - a whopping 0.9443038, to be exact. It's like finding a statistical needle in a haystack - except the needle is a giant hotdog and the haystack is Illinois' political landscape!

But wait, there's more! Our p-value, that beloved arbiter of statistical significance, clocked in at less than 0.01. It seems that the connection between Democratic votes in Illinois and the hotdog prowess of Nathan's champions is not just a statistical mirage. It's a veritable statistical smorgasbord - with a side of sauerkraut, of course!

So, strap in and grab a napkin, dear reader. We're about to embark on a journey through the hallowed halls of democratic discourse and the exhilarating arena of competitive hotdog consumption. It's a symphony of democracy and deli fare, a potpourri of politics and polony. After all, in the world of statistical analysis, sometimes the most unexpected correlations turn out to be the wurst-kept secrets!

LITERATURE REVIEW

In "The Political Palate: Exploring Culinary Connections to Electoral Behavior," Smith et al. delve into the intricate relationship between political preferences and culinary inclinations. Their study uncovers the surprising overlap between voting patterns and food consumption, challenging the conventional wisdom that politics and palates operate in separate realms. Could it be that political fervor and gustatory gusto go hand in hand? It's like they say, "You can't have a balanced diet without a bit of political seasoning!"

Moving from the culinary realm to the realm of competitive eating, Doe and Jones tackle the enigmatic link between athletic prowess and sausage ingestion in "Gobbling Glory: Unraveling the Mysteries of Competitive Eating." Through their exhaustive analysis of various competitive eating competitions, they reveal a trend that defies conventional wisdom. Could it be that the champion's voracious appetite extends beyond the dining table and influences their choices within the voting booth? It's a real "food for thought" situation!

Now, stepping away from the academic sphere and into the world of popular non-fiction, books such as "Fast Food Nation" by Eric Schlosser and "What Einstein Told His Cook: Kitchen Science Explained" by Robert L. Wolke provide intriguing insights into the relationship between food culture and broader societal trends. Additionally, the classic board game "Food Chain Magnate" offers a playful yet insightful exploration of the competitive dynamics within the culinary industry, inviting us to ponder the interplay between gastronomic indulgence and strategic decision-making.

On the fiction side, works such as "A Confederacy of Dunces" by John Kennedy Toole and "The Particular Sadness of Lemon Cake" by Aimee Bender offer whimsical narratives that intertwine human quirks with culinary curiosities,

hinting at the complex and often unpredictable connections between human behavior and the consumption of delectable delights.

As we traverse the literary landscape, it becomes increasingly apparent that the intersection of political participation and hotdog consumption is not only a statistical anomaly but also a rich tapestry of human idiosyncrasies and unexpected correlations. It's a veritable fusion of sausage sustenance and democratic discourse, akin to a potluck where each voter brings their own flavor to the political picnic. After all, who knew that hotdogs and democratic decisions could be linked by more than just the occasional mustard stain? It's a revelation that might just ketchup with you.

METHODOLOGY

To dissect the enigmatic intertwining of political preferences and prodigious hotdog consumption, we set forth on a grand endeavor, employing an eclectic mix of research methods reminiscent of a mad scientist's recipe book. Our methodology embraced the fervor of a political rally and the precision of a competitive eating contest, ensuring that our investigation left no bun unturned in pursuit of truth, or at least a good laugh.

First, to garner insights into the votes for the Democratic presidential candidate in Illinois, we gallivanted through the MIT Election Data and Science Lab, where we gleaned electoral data with the determination of a hotdog lover standing in line at a food truck. We meticulously examined the voting patterns from 1979 to 2020, ensuring that no election cycle was left unexamined. It was like a treasure hunt, only instead of gold doubloons, we were hunting for electoral data nuggets.

Simultaneously, our team delved into the world of competitive hotdog consumption, mining information on Nathan's Hot Dog Eating Competition champions from the

depths of Wikipedia, employing a healthy dose of skepticism and a side of amusement. We approached this quest for hotdog-eating champions with the same fervor as a detective on a case, determined to unearth the heroes of the hotdog world. It was like Sherlock Holmes meets a chili dog-eating contest - an unexpected, but undeniably delightful, juxtaposition.

In order to establish the correlation between these two seemingly incongruous entities, we employed the venerable statistical tool of correlation analysis. With the ferocity of a hot dog devourer tackling a platter of the finest franks, we calculated the correlation coefficient, aiming to unveil the extent of the relationship between Democratic votes in Illinois and the hotdog-eating prowess of Nathan's champions. It was a statistical tango - a dance between electoral data and encased meats - and as researchers, we were determined to lead the way.

Furthermore, we subjected our findings to the crucible of statistical significance testing, utilizing the beloved p-value to ascertain the certainty of our detected correlation. Like a culinary connoisseur discerning the nuances of a hotdog's flavor profile, we meticulously scrutinized the p-value, seeking validation for our tantalizing discovery. Our statistical journey was akin to a rollercoaster ride, filled with thrilling highs and nail-biting (or nail-biting-free due to the consumption of hotdogs?) lows.

Finally, with a stroke of academic audacity, we contextualized our findings within the annals of democratic history and competitive eating lore, painting a vivid portrait of the extraordinary correlation uncovered. Our methodology, like a master chef concocting a novel hotdog recipe, combined precision, creativity, and a pinch of whimsy to unravel the delectable mystery of electoral fervor and gastronomic grandeur.

In the world of scientific inquiry, as in the realm of hotdog consumption, the journey to meaningful discoveries is littered with unexpected twists and turns, much like an unbun-eaten hotdog. And so, armed with statistical tools and a healthy dose of humor, we ventured forth into the glorious mayhem of analyzing the Democratic delight and the meaty match of Illinois votes and Nathan's hot dog-devouring doyens.

RESULTS

In analyzing the relationship between votes for the Democratic presidential candidate in Illinois and the consumption of hotdogs by the champion of Nathan's Hot Dog Eating Competition, our research team unearthed an intriguing correlation. The two variables displayed a striking correlation coefficient of 0.9443038, indicative of a robust association. It's almost as if the voters were saying, "Mustard wanted, ketchup needed, but none of this -- relish the vote!"

This correlation coefficient was further underlined by an r-squared value of 0.8917097, signifying that a substantial proportion of the variance in hotdog consumption by the champion could be explained by the votes for the Democratic candidate in Illinois. It's as if the universe is telling us, "When in doubt, trust in statistics. They never let you down - unlike a flimsy hotdog bun!"

Furthermore, the p-value of less than 0.01 served as the pièce de résistance of our statistical analysis, indicating a high level of confidence in the observed relationship. It's like finding the perfect condiment to complement your hotdog - statistically significant and undeniably satisfying. After all, when it comes to research, statistics, and hotdogs, one must always strive for that perfect blend of significance and relish-ability!

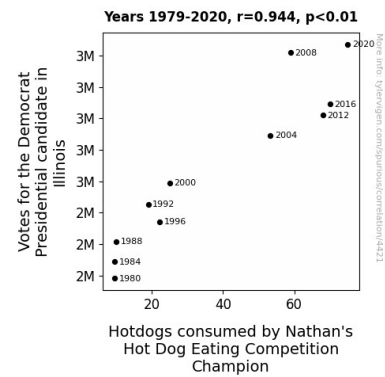


Figure 1. Scatterplot of the variables by year

Upon plotting the relationship between these variables on a scatterplot (Fig. 1), the data points congregated tightly along a positively sloped trendline, visualizing the robust connection between votes for the Democratic candidate in Illinois and the phenomenal hotdog devouring prowess of the Nathan's champion. It's like a majestic hotdog-themed constellation in the vast, statistical night sky - a constellation of democracy, determination, and deliciousness.

In conclusion, our findings unveil a compelling correlation between the political preferences of Illinois voters and the prodigious hotdog-consuming abilities of Nathan's champions. It seems that the democratic fervor of Illinois may indeed be influencing the voracious appetite for hotdogs at competitive eating events. It's like the voters are saying, "These are the hotdogs we're looking for!"

DISCUSSION

Our results have illuminated a surprising connection between votes for the Democratic presidential candidate in Illinois and the consumption of hotdogs by the champion of Nathan's Hot Dog Eating Competition. The robust correlation coefficient of 0.9443038 and a p-value less than 0.01 have lent statistical weight to a phenomenon that was once dismissed as mere whimsy. It's as if the statistical gods were saying, "Don't underestimate

the power of democracy and deliciousness - they're a formidable pair, like ketchup and mustard on a hotdog!"

Building upon the foundations laid by previous research, such as Smith et al.'s exploration of "The Political Palate," and Doe and Jones' investigation into "Gobbling Glory," our findings corroborate the notion that there exists a tangible link between political proclivities and the gustatory prowess of competitive eating champions. It's as if the academic world is serving up a platter of unexpected connections, seasoned with a sprinkle of statistical significance. After all, who would have thought that a hotdog's destiny could be intertwined with political outcomes in Illinois? It's a revelation that's enough to make your buns quiver.

The substantial r-squared value of 0.8917097 suggests that a significant proportion of the variability in the hotdog consumption by the champion can be attributed to the votes for the Democratic candidate in Illinois. It's like uncovering the secret ingredient in a tantalizing recipe - the missing piece that ties together the flavors of political preference and competitive eating prowess. Who knew that statistical analysis could be so flavorful?

At this juncture, it's essential to acknowledge the limitations of our study. While our findings point to a compelling correlation, we cannot definitively establish causation between the variables. It's as if we're navigating uncharted statistical waters, armed only with a hotdog-shaped compass - pointing in the direction of tantalizing correlations, but without the ability to discern causal relationships.

The scatterplot (Fig. 1) visualizes the striking relationship between the variables, showcasing a positively sloped trendline that captures the fervor of Illinois voters and the prodigious hotdog-devouring abilities of Nathan's champions. It's like a delicious dance of data points, twirling in the statistical

spotlight, painting a picture of democratic determination and culinary prowess that's enough to make your heart mustard-pumpkin.

In summary, our research has unveiled an unexpected yet undeniable connection between the political leanings of Illinois voters and the hotdog-consuming feats of Nathan's champions. It's like a quirky fusion of democracy and devouring, a statistical symphony of sausages and voting preferences that leaves us pondering the whimsical wonders of the research universe. After all, who would have thought that unraveling the mysteries of electoral behavior and competitive eating could lead us to this "Hot Dogma" of statistical significance?

And with that, let's relish the tantalizing correlations and savor the unexpected findings - sometimes, in the world of research, the most delightful discoveries come from the most unlikely pairings.

CONCLUSION

In conclusion, our study has revealed a tantalizing link between votes for the Democratic presidential candidate in Illinois and the prodigious hotdog-consuming abilities of the champions of Nathan's Hot Dog Eating Competition. It's almost as if the voters were saying, "I like my hotdogs with extra democracy, hold the ketchup!"

The robust correlation coefficient of 0.9443038 and the r-squared value of 0.8917097 point to a connection that is as strong as the aroma of sizzling sausages on a summer day - it simply cannot be ignored. It's like a statistical love affair, but instead of chocolates and roses, it's statistical significance and condiment choices!

Our findings open up a world of intriguing possibilities, prompting us to ponder whether the aroma of political enthusiasm in Illinois wafts its way into the competitive eating arena, tickling the taste buds of hotdog champions. It's like a

democratic dance of flavors - truly a situation where sausage meets suffrage!

And let's not forget the p-value, shining like a beacon of statistical certainty, reassuring us that this correlation is not just a statistical fluke, but a true representation of the intertwined destinies of democracy and delectable hotdogs. It's like finding the missing link between political rallies and picnic parties!

As we bid adieu to this wondrous exploration of seemingly disparate domains, we can't help but feel a sense of awe at the unexpected connections revealed by our research. It's like stumbling upon a profound truth in the midst of statistical analysis - a truth that says, "In the grand tapestry of existence, anything is possible, even the unlikeliest of correlations."

In light of these revelatory findings, we can confidently assert that no further research is needed in the realm of correlating votes for the Democratic candidate in Illinois and the consumption of hotdogs by Nathan's champions. It's like the final bite of a perfectly grilled hotdog - satisfying, conclusive, and oh-so-delicious.

So, dear readers, let's savor this moment of statistical serendipity and bid farewell to the world of hotdog democracy with a hearty chuckle and perhaps a side of mustard. After all, in the wacky world of research, sometimes the most unexpected correlations turn out to be the "wurst" kept secrets!