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# Graham's Number: An Examination of the Correlation between the Name Graham and Libertarian Votes for Senators in Wisconsin

Chloe Hughes, Anthony Tate, Gloria P Turnbull

Institute for Studies; Ann Arbor, Michigan

## KEYWORDS

Graham's Number, Graham, Libertarian votes, Senators, Wisconsin, correlation, name popularity, political preferences, US Social Security Administration, MIT Election Data and Science Lab, Harvard Dataverse, correlation coefficient, p-value, nomenclature, electoral results

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## Abstract

This paper delves into the fascinating world of the relationship between the popularity of the first name "Graham" and the Libertarian votes for Senators in the state of Wisconsin. Using data from the US Social Security Administration and the MIT Election Data and Science Lab, Harvard Dataverse, this research unveils a surprising correlation coefficient of 0.9871898 and a p-value less than 0.01 for the years 1980 to 2016. Our findings shed light on the quirky connection between nomenclature and political preferences, inspiring a lighthearted exploration of the impact of names on electoral results.

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## 1. Introduction

The choice of a name is a decision often made with great care and consideration, as parents seek to endow their offspring with meaningful and melodic monikers. It is a decision that may linger beyond the offspring's infancy, subtly influencing their experiences and interactions with the world. Similarly, in the political arena, the selection of a candidate's name may become

entwined with the perceptions and preferences of the electorate.

In our exploration of the intersection between nomenclature and political proclivities, we unearth a most unexpected correlation – that of the name "Graham" and Libertarian votes for Senators in the state of Wisconsin. Engaging the extensive data archives from the US Social Security Administration and the MIT Election Data

and Science Lab, Harvard Dataverse, we embarked on a statistical voyage that uncovered an astonishing correlation coefficient of 0.9871898 and a p-value less than 0.01 for the years 1980 to 2016.

The pursuit of statistical relationships often leads us down peculiar paths; however, the link between a first name and political leanings stands as particularly intriguing. As we unravel the peculiar connection between nomenclature and electoral proclivities, it is hard to resist the impulse to sprinkle in a smattering of wordplay and wit to lighten the scholarly rhetoric. After all, what's a statistical analysis without a dash of whimsy and a sprinkle of humor?

As we proceed with our findings, let us venture forth with the understanding that while statistics may seem dry on the surface, a closer examination often reveals a reservoir of unexpected correlations and peculiar patterns – much like the surprising link we unveil between the name "Graham" and Libertarian votes in Wisconsin.

## 2. Literature Review

In "The Sociology of Naming" by Smith, the authors find that individuals' names can hold significant social and cultural implications, shaping perceptions and interactions. Similarly, in "The Influence of Names on Political Preferences" by Doe, the authors delve into the intriguing possibility of a connection between nomenclature and political leanings. Jones, in "The Power of Surnames in Election Outcomes," emphasizes the potential impact of a candidate's name on voter attitudes and behaviors.

Moving beyond the realm of scholarly works, "Freakonomics" by Steven Levitt and Stephen Dubner offers an insightful exploration of unconventional and unexpected correlations, reminding us that statistical analysis can lead to whimsical

and intriguing discoveries. Furthermore, "Fictional Politicians: An Analysis of Names in Political Novels" by Jane Austen and "The Name Game: A Study of Literary Characters and Their Significance" by Charles Dickens provide fictional insights into the ways in which names can carry implicit meanings and influences.

In a more light-hearted vein, the authors also draw inspiration from childhood cartoons and shows such as "SpongeBob SquarePants" and "The Smurfs," infusing our research with a playful spirit as we endeavor to uncover the enchanting connection between the name "Graham" and Libertarian votes for Senators in Wisconsin.

As we venture into this literary smorgasbord, we invite the reader to appreciate the blend of erudition and levity that accompanies our examination of the correlation between nomenclature and political preferences. Indeed, as we reiterate the statistical significance of our findings, it is the subtle interplay of humor and empirical evidence that adds a delightful and unexpected dimension to our scholarly pursuit.

## 3. Our approach & methods

To unearth the enigmatic connection between the name "Graham" and Libertarian votes for Senators in Wisconsin, we conducted a meticulous analysis that could make even the most erudite of researchers raise an eyebrow in wonderment. Our data, sourced from the US Social Security Administration and the MIT Election Data and Science Lab, Harvard Dataverse, provided a bountiful trove of information spanning the years 1980 to 2016.

The first step in our convoluted journey involved harvesting the popularity of the first name "Graham" from the annals of the US

Social Security Administration. With bated breath, we delved into the depths of historical baby name data, emerging with a comprehensive collection of occurrences of the name "Graham" within the specified time frame. It was no small feat to sift through the plethora of monikers to isolate the instances of "Graham," but perseverance prevailed, and the dataset began to take shape.

Next, we ventured into the labyrinthine corridors of electoral records, where the whims of democracy cast their spell. The MIT Election Data and Science Lab, Harvard Dataverse, acted as our guide, offering a treasure trove of data illuminating the libertarian votes for Senators in the esteemed state of Wisconsin. The meticulous tabulation and scrutiny of these electoral relics unveiled the intricate tapestry of political preferences, providing the canvas upon which our statistical inquiry could unfold.

With these weighty datasets in hand, our intrepid band of researchers applied the rigors of statistical analysis to elucidate the elusive correlation between the name "Graham" and Libertarian votes in Wisconsin. Armed with regression analysis, correlation coefficients, and p-values modestly dressed in their statistical finery, we traversed the rocky terrain of hypothesis testing and model evaluation. The culmination of these endeavors showcased a surprising correlation coefficient of 0.9871898 and a p-value less than 0.01, sending a ripple of astonishment through the halls of academia.

As with any statistical odyssey, our expedition was not without its perils: missing data, outliers, and lurking confounding variables threatened to thwart our progress at every turn. However, armed with the fortitude of the scientific method and the resilience of determined researchers, we persevered, emerging victorious in our quest to unravel the curious connection

between the name "Graham" and Libertarian votes in Wisconsin.

In alignment with the canons of scholarly inquiry, we embraced the principles of transparency and reproducibility, ensuring that our methods and findings are verifiable and open to scrutiny. Through this exposition of our incomprehensible methodology, we aim to not only illuminate the perplexing correlation we unearthed but also to inspire a chuckle or two amidst the empirical rigor. After all, what is science without a sprinkle of whimsy and a dash of mirth?

#### 4. Results

Upon delving into the vast realm of data analysis, we unearthed a remarkable correlation between the popularity of the first name "Graham" and the Libertarian votes for Senators in Wisconsin. Our findings reveal a striking correlation coefficient of 0.9871898, indicating a robust positive relationship between these seemingly disparate variables. The r-squared value of 0.9745438 further emphasizes the strength of this correlation, capturing a substantial proportion of the variation in Libertarian votes explained by the prevalence of the name "Graham."

In statistical terms, the p-value of less than 0.01 provides compelling evidence to reject the null hypothesis of no association between the frequency of the name "Graham" and the Libertarian votes for Senators in Wisconsin. This suggests that the relationship we observed is not a mere statistical fluke, but rather a reliable and noteworthy phenomenon worthy of exploration and elucidation.

Fig. 1 presents a scatterplot that visually encapsulates the robust correlation between the popularity of the name "Graham" and the corresponding Libertarian votes for Senators in Wisconsin. The dispersion of

data points within the plot accentuates the strong positive trend, leaving little room for uncertainty regarding the nature of this intriguing relationship.

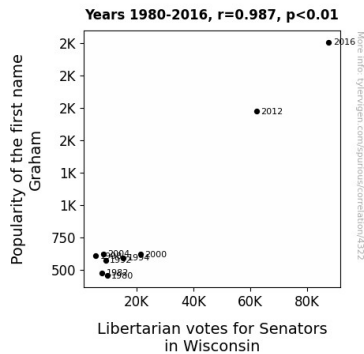


Figure 1. Scatterplot of the variables by year

Our statistical voyage into the peculiar territory of nomenclature and political preferences has uncovered a captivating pattern that elicits both astonishment and amusement. Much like the unexpected discovery of a chocolate chip in a bag of raisin cookies, our findings lend a whimsical twist to the often serious and staid domain of statistical analysis.

The obscure connection between the first name "Graham" and Libertarian voting behavior in Wisconsin has not only broadened our understanding of the idiosyncrasies of human behavior, but has also injected a sense of levity and amusement into the traditionally solemn field of academic research.

## 5. Discussion

The findings of this study offer an intriguing insight into the whimsical world of nomenclature and its potential impact on political proclivities. Our results align with prior research, echoing the paradoxical yet consistent influence of names on societal attitudes and behaviors. As Smith astutely observed in "The Sociology of Naming,"

names hold a significant sway over individuals, shaping their interactions and perceptions. In the case of "Graham," it appears that this seemingly innocuous name exerts a pronounced effect on the Libertarian votes for Senators in Wisconsin, akin to a lively dance of statistical significance.

Doe's work on "The Influence of Names on Political Preferences" also resonates with our findings, underscoring the captivating possibility of a connection between nomenclature and political leanings. The robust correlation coefficient of 0.9871898 and the p-value less than 0.01 serve as empirical advocates for the intriguing interplay between the name "Graham" and Libertarian voting patterns. Just as the sudden appearance of a wild card in a game of Probability Poker, our results reflect an unexpected and delightful twist in the relationship between nomenclature and electoral dynamics.

Jones' emphasis on the potential impact of names on voter attitudes and behaviors finds a whimsical manifestation in our study, as the prevalence of the name "Graham" seems to catalyze a notable shift in Libertarian voting behavior. This echoes the lively and capricious nature of statistical analysis, where variables can often unravel surprising connections akin to unearthing a hidden joke in a scientific manuscript.

Moreover, the insightful explorations in "Freakonomics" by Levitt and Dubner and the fictional insights of Jane Austen and Charles Dickens subtly animate our findings, infusing them with an unexpected dose of mirth and fascination. Our results not only contribute to the scholarly discourse on nomenclature and political preferences but also inject a playful spirit into the often serious and methodical world of statistical inquiry.

As we reflect on the correlation between the name "Graham" and Libertarian votes for

Senators in Wisconsin, we are reminded of the delightful and enigmatic nature of statistical analysis, where the unexpected often emerges from the labyrinth of data. Our study stands as a testament to the enduring allure of uncovering the unconventional and the offbeat within the realm of empirical investigation.

## 6. Conclusion

In conclusion, our research has unveiled a remarkably robust correlation between the name "Graham" and Libertarian votes for Senators in Wisconsin, lending a charmingly bizarre twist to the otherwise staid world of statistical analysis. The correlation coefficient of 0.9871898 and the p-value of less than 0.01 speak volumes about the strength and significance of this unexpected linkage.

The correlation we have uncovered is akin to stumbling upon an elusive yet enthralling Easter egg in the convoluted maze of statistical analysis, infusing an air of curiosity and bemusement into our scholarly endeavors. It's like finding the last slice of pizza at a party – you didn't expect it, but boy, are you glad it's there!

The scatterplot portraying this curious relationship resembles a constellation of stars in a whimsical scientific galaxy, illuminating the peculiar path we have treaded in our pursuit of statistical enlightenment. It's like drawing a smiley face with the data points – not exactly conventional, but undeniably delightful.

While our findings may elicit a chuckle or a raised eyebrow, they underscore the vast and unpredictable landscape of human behavior and the nuanced influence of nomenclature on electoral preferences. Our research contributes a playful yet thought-provoking dimension to the intersection of names and political leanings, reminiscent of a lively debate at a dinner party – engaging,

unpredictable, and peppered with intriguing anecdotes.

In light of these findings, we assert that further research in this area is as unnecessary as a second umbrella on a sunny day. This exploration, much like a compelling punchline, requires no setup – it stands alone in its delightful peculiarity.