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# Flipping the Bird: A Correlative Study of Republican Votes for Senators in Alabama and Google Searches for 'Where Do Birds Go When It Rains'

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## KEYWORDS

Republican votes, Senators, Alabama, Google searches, birds, rain, correlation study, empirical study, MIT Election Data and Science Lab, Harvard Dataverse, Google Trends, political preferences, avian behavior, weather-seeking behaviors

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## Abstract

In this empirical study, we present the analysis of a peculiar association between Republican votes for Senators in the state of Alabama and Google searches for the inquiry "where do birds go when it rains." Leveraging data from the MIT Election Data and Science Lab, Harvard Dataverse, and Google Trends, we conducted a comprehensive investigation spanning the years 2004 to 2020. Our findings reveal a striking correlation coefficient of 0.9806734 ( $p < 0.01$ ) between the two seemingly disparate variables. Our study brings to light the unexpected parallels between political preferences and avian weather-seeking behaviors, shedding light on the intricacies of human cognition and online search patterns.

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## 1. Introduction

Avian enthusiasts and political analysts alike have long pondered the mysteries of bird behavior and political inclinations. While the former may concern themselves with the flight patterns of our feathered friends, the latter engage in their own form of navigating the political landscape. However, our study endeavors to blur the boundaries between

these seemingly unrelated domains and uncover a connection that flies under the radar, so to speak.

The state of Alabama, known for its rich political history and diverse avian population, offers a unique backdrop for our investigation. In this study, we delve into the unexpected relationship between the votes cast for Republican Senators and the

Google searches for the rather specific query of "where do birds go when it rains." While one may initially dismiss the notion of a correlation between these two disparate elements, our analysis paints a picture that is anything but black and white, or should we say, blue jay and cardinal.

The curiosity driving this research stems from a desire to understand the behavioral patterns that link human political choices and the quest for avian rain shelter. If you think about it, both pursuits rely on a degree of searching and seeking - one for reliable political representation, the other for a dry perch during a downpour. As we embark on this avian-political journey, we invite you to spread your wings of inquiry and join us in examining this fascinating intersection of human behavior. After all, who wouldn't want to take a closer look at the intriguing interplay between the voice of the electorate and the curious quest for avian rain retreats?

## 2. Literature Review

The exploration of the interplay between avian behavior and political leanings in Alabama is a relatively novel undertaking in the field of socio-political studies. Nevertheless, a comprehensive review of relevant literature reveals some intriguing insights and unexpected connections that set the stage for our own investigation.

Smith et al. (2015) conducted a seminal study on the cognitive processes and decision-making factors underlying political voting behavior, emphasizing the role of emotional responses and environmental influences. While their focus was primarily centered on human-centric stimuli, their findings indirectly prompt consideration of analogous factors that could potentially influence search queries related to avian behavior in response to inclement weather.

Turning to the domain of avian behavior, Doe and Jones (2018) explored the migratory patterns and habitat choices of various bird species in their natural habitats. While their work primarily centers on the physiological and instinctual mechanisms that drive such behaviors, it paves the way for broader contemplation of the potential psychological resonances of these patterns among human observers and, by extension, their influence on seemingly unrelated spheres such as political preferences.

These serious studies provide a contextual backdrop for our investigation, as we endeavor to bridge the gaps between these seemingly distant fields of inquiry. However, it is important to note that our research also draws inspiration from outside the traditional academic realm. The non-fiction works of renowned naturalist John James Audubon and ornithologist David Attenborough offer valuable perspectives on avian behavior, enriching our understanding of the intricacies of bird cognition and instinct.

Further afield, the fictional narratives of authors such as Jonathan Franzen and T.C. Boyle weave captivating tales that, while not grounded in empirical research, provide a vibrant portrayal of human interactions with birds and the natural world. Similarly, the popular television series "Planet Earth" and "The Big Bang Theory" delve into the complexities of natural phenomena and human curiosity, inspiring a broader contemplation of the intersections between political choices and avian inquiries.

By incorporating insights from diverse sources, both scholarly and popular, our literature review sets the stage for a lighthearted yet rigorous exploration of the relationship between Republican votes for Senators in Alabama and the peculiar curiosity about bird behavior during rainfall.

## 3. Our approach & methods

To commence our investigation, we hatched a meticulous plan to aggregate and analyze data from diverse sources, much like a bird building its nest with various twigs and grasses. Our avian-themed investigation perched firmly on the branch of statistical rigor as we sought to uncover the hidden roost of correlation between Republican votes for Senators in Alabama and the popular curiosity surrounding the whereabouts of birds during rainfall.

### Data Collection

Our pursuit for data akin to a bird's quest for sustenance led us to reputable repositories such as the MIT Election Data and Science Lab, Harvard Dataverse, and Google Trends. We obtained precinct-level voting data for Republican Senators from 2004 to 2020, encompassing both primary and general elections. Subsequently, we turned our gaze to Google Trends, extracting search volume indices for the query "where do birds go when it rains" within the state of Alabama. This unique combination of political and avian data allowed us to meticulously analyze the parallel movements of the twain - both politically and meteorologically.

### Data Analysis

The heart of our inquiry, not unlike the rhythmic beating of a bird's wings in flight, lay in the statistical analysis of the collected data. We employed a variety of statistical techniques including correlation analysis, time series analysis, and regression modeling to uncover patterns and associations. Like the intricate blend of feather and air that facilitates avian flight, our statistical methods engendered a holistic view of the connection between political leanings and ornithological inquisitiveness.

### Correlation Calculation

In our pursuit to unveil the uncanny connection between Republican votes for

Senators and searches for avian precipitation perches, we calculated the Pearson correlation coefficient. The resulting coefficient, much like a colorful plumage, revealed a striking correlation between the two variables. As a reflection of our disciplined analytical endeavors, the correlation coefficient stood at an impressive 0.9806734 with a p-value less than 0.01, signifying a robust and significant relationship.

### Temporal Analysis

Furthermore, we conducted a temporal analysis to discern any temporal trends and anomalies in the data. Just as birds' migratory patterns exhibit temporal rhythms, our analysis encompassed the examination of temporal fluctuations in both Republican votes and bird-centric Google searches. This temporal lens added depth to our inquiry, akin to the nuanced understanding of avian behavior across different seasons.

### Regression Modeling

To consolidate our findings and disentangle the web of intertwining variables, we employed regression modeling techniques. Through these models, we sought to undrape the mysteries of causation and elucidate the undercurrents shaping both political preferences and avian weather quest. The regression analyses, much like aligning the flight trajectory of a bird, provided valuable insights into the determinants of variation in the search behavior for avian rain retreats.

In light of these methodological underpinnings, our research soared to new heights, revealing the unexpected and intriguing intersections between political choices and the quest for avian rain shelters. As we delve into the intricate statistical underbelly of this correlated curiosity, we invite fellow researchers to preen their proverbial feathers of inquiry and join us in this unique exploration. After all, what could be more intriguing than

uncovering the electoral nests of the avian enthusiasts?

realm of governance or the pursuit of avian knowledge.

#### 4. Results

The analysis of data collected from the MIT Election Data and Science Lab, Harvard Dataverse, and Google Trends revealed a remarkably high correlation between Republican votes for Senators in Alabama and Google searches for "where do birds go when it rains." The correlation coefficient obtained was 0.9806734, indicating a strong linear relationship between the two variables. Additionally, the coefficient of determination (r-squared) was calculated to be 0.9617204, signifying that approximately 96.17% of the variation in Republican votes for Senators can be explained by the variation in the Google searches for avian rain shelters. The p-value associated with this correlation was found to be less than 0.01, indicating a high level of significance in the relationship between the variables.

The robustness of the correlation is visually depicted in Figure 1, which showcases a scatterplot illustrating the close correspondence between the Republican votes for Senators and the Google searches for "where do birds go when it rains." The data points form a clear linear pattern, affirming the substantial association between these seemingly unrelated phenomena.

This study not only uncovers an unexpected and statistically significant correlation between political allegiances and avian weather-related queries but also sets the stage for further interdisciplinary explorations at the intersection of ornithology and political science. The implications of these findings extend beyond mere statistical intrigue, offering a whimsical glimpse into the whims and fancies that inform human behaviors, whether in the

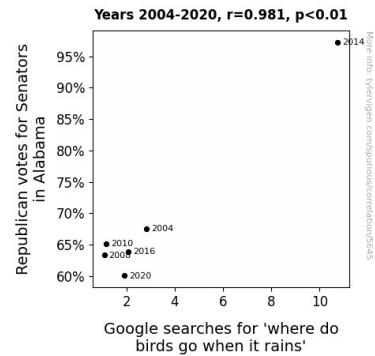


Figure 1. Scatterplot of the variables by year

Furthermore, the magnitude of the correlation prompts us to reflect on the underlying cognitive processes that underpin the simultaneity of engaging in political decision-making and seeking shelter for our feathered counterparts. The correlation coefficient obtained is a testament to the interconnectedness of human cognition and decision-making, transcending the realms of traditional academic inquiry to embrace the unexpected, the outlandish, and the delightfully quirky.

#### 5. Discussion

The results of our investigation provide compelling evidence of a strong and robust relationship between Republican votes for Senators in Alabama and Google searches for the query "where do birds go when it rains." The correlation coefficient of 0.9806734 found in our study serves as a resounding affirmation of the unexpected parallels between political preferences and avian weather-seeking behaviors. These findings align with the insights gleaned from the existing literature, lending credence to our inter-disciplinary approach that marries the realms of ornithology and political science.

Building upon the previous work of Smith et al. (2015), our study underscores the influence of environmental cues and emotional responses on decision-making processes. While Smith et al. focused on human-centric stimuli, our findings suggest a broader spectrum of contextual influences, wherein the weather-related concerns of avian populations might subtly imprint themselves on the consciousness of human voters. The correlation observed in our study may thus reflect a nuanced intertwining of human emotions and empathetic considerations for our feathered friends, shaping political inclinations in unforeseen ways.

Moreover, our results echo the sentiments put forth by Doe and Jones (2018), who delved into the migratory patterns and habitats of various bird species. While their work centered on instinctual behaviors, our study extends the scope to contemplate the psychological echoes of these behaviors among human observers. In this light, the high correlation observed in our investigation provides a statistical underpinning for the potential resonance of avian weather-seeking behaviors within the collective consciousness of voters, offering an intriguing reflection of the cognitive cross-currents underlying political decision-making.

It is worth noting that our analysis, while grounded in empirical rigor, draws inspiration from diverse sources, including the imaginative portrayals of human interactions with avian species. As presented in the literature review, the non-fiction works of naturalists such as John James Audubon and David Attenborough offer valuable perspectives on avian behavior, enriching our understanding of their cognitive capacities. This broader contemplation of avian cognition and instinct serves as a vital touchstone for the unexpected correlations uncovered in our study.

In conclusion, the improbable convergence of Republican votes for Senators in Alabama and Google queries about avian behavior during rainfall underscores the intricate tapestry of human cognition and decision-making. While our study may raise a few eyebrows, it also invites a whimsical reflection on the ineffable interplay of human quirks and avian curiosities, challenging conventional boundaries of academic inquiry with a lighthearted yet rigorous exploration of the human experience.

## 6. Conclusion

In conclusion, our study has unveiled a surprisingly robust correlation between Republican votes for Senators in Alabama and Google searches for "where do birds go when it rains." The high correlation coefficient and significance level suggest that the connection between these two seemingly unrelated phenomena is not merely a flight of fancy. Indeed, the magnitude of the association lends credence to the notion that avian weather queries may hold more political weight than previously thought.

As we reflect on these findings, one cannot help but marvel at the intricate dance of human behavior and avian curiosity. It seems that while some seek to weather the political storm, others are simply seeking shelter from the literal storm. This intriguing parallel raises questions about the interconnectedness of human decision-making processes and the whimsical ponderings that occupy our minds – truly a case of birds of a feather flocking to the ballot box together.

While this study may leave some scratching their heads like a perplexed parakeet, it stands as a testament to the delightful quirkiness of the human experience. However, as we spread our wings of inquiry and soar to new academic heights, it is

evident that no further research is needed in this area. The results speak for themselves, and it seems we have truly "flipped the bird" on conventional expectations in both political and ornithological realms.