# Chillin' with the Penguins: The Antarctic Connection between Republican Votes for Senators in Pennsylvania and Google Searches

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### Abstract

The perplexing relationship between political preferences and online search behaviors has been a topic of growing interest. In this study, we dive deep into the icy waters of data to explore the intriguing link between Republican votes for Senators in Pennsylvania and Google searches for "how to get to Antarctica." Our research team used data from MIT Election Data and Science Lab, Harvard Dataverse, and Google Trends to assess this nagging question. We found a striking correlation coefficient of 0.8707115 and p < 0.05 for the time period spanning from 2004 to 2018. The results suggest a noteworthy association between the political leanings of Pennsylvania voters and their curiosity about polar expeditions. Perhaps, a dad joke's relevance to our findings: What do you call it when a penguin decides to visit the South Pole? An antarctic mission! Our findings offer a frosty twist in the realm of political and search behavior research, raising questions that are as chilling as the icy continent itself.

## 1. Introduction

As advances in data analytics and technology continue to revolutionize the academic landscape, researchers are uncovering unexpected and offbeat connections that raise eyebrows and elicit a chuckle or two. In the age of big data, the marriage of political science and online search behavior has birthed a peculiar yet riveting subject of inquiry – the intersection of Republican votes for Senators in Pennsylvania and Google searches for "how to get to Antarctica." While one might think this pairing is as unlikely as a penguin without an ice cap, our study dives into the depths of statistical analysis to reveal the fascinating correlations hidden beneath the polar ice.

It's not every day that political science collides with glacial exploration, but as they say, the world of research can be as unpredictable as a melting ice shelf. And what better way to pique curiosity than to uncover the mysterious ties between political affiliations and an interest in embarking on a journey to the world's southernmost continent? After all, who wouldn't want to chill with the penguins and make ice-cold puns about statistical significance while sipping on some polar ice tea?

Our team of intrepid researchers embarked on this quest armed with data from the MIT Election Data and Science Lab, Harvard Dataverse, and Google Trends, striving to unravel the frosty embrace between voting patterns and a sudden urge to wander amid the snow and ice. And it turns out, the correlations we uncovered were as surprising as finding a polar bear in a winter coat store!

But before we reveal the bone-chilling details, let's take a moment to appreciate the humor in statistics – after all, what did one statistician say to the other? "You know, I feel more like I do now than I did when I first got here." Ah, the joys of data analysis!

# 2. Literature Review

Smith and Jones (2015) examined the intersection of political voting behavior and unusual internet search queries and found compelling evidence of unexpected correlations. The authors' investigation, however, did not traverse the frosty terrain of Antarctic curiosity linked to political leanings. Nevertheless, their study laid the groundwork for exploring the enigmatic ties between political affiliations and seemingly unrelated online queries. Speaking of enigmatic ties, what did the penguin wear to the beach? A "ice"berg!

Doe (2017) delved into the realm of online search behavior and political preferences, shedding light on the surprising relationship between regional voting patterns and internet search trends. While their focus was on conventional search queries related to political sentiment, our study takes a detour into the icy depths of Antarctic intrigue, uncovering a new layer of complexity in the web of human curiosity. It's safe to say that our research journey has been as full of surprises as finding a polar bear at a tropical luau!

In "Antarctic Adventures" by Frosty Explorer, the author chronicles harrowing tales of polar expeditions, mapping out the captivating allure of the southernmost continent. While not a scholarly work, this daring account of icy escapades serves as an inspiration for our exploration of the unexpected bond between Pennsylvania voters and their curiosity about Antarctic voyages. It's clear that our research is not just about cold statistics but also about the thrill of discovering uncharted territories in the realm of political and search behavior studies.

On a more fictitious note, "Icebound" by Arctic Adventurer weaves a tantalizing narrative of frozen landscapes and daring escapades, evoking the spirit of exploration that resonates with our investigation into the mysterious connection between political inclinations and a yearning for polar exploration. Who knew that the world of politics and the icy wilderness could converge in such an exhilarating manner? Speaking of convergence, why did the penguin cross the road? To get to the brrr-ther side!

Drawing inspiration from the world of games, "Polar Expedition" board game simulates the thrill of navigating treacherous Antarctic terrain, mirroring the unexpected twists and turns we encountered in our research journey. Just like in the game, our study unravels puzzling connections and untangles the web of curiosity that leads Pennsylvania voters to seek answers on how to reach the frosty paradise of Antarctica. It's a journey that's as delightfully puzzling as a polar bear's crossword puzzle!

literature review demonstrates, As our the captivating and at times humorous bond between Republican votes for Senators in Pennsylvania and Google searches for "how to get to Antarctica" transcends the realm of mere statistical correlations, paving the way for a new frontier of inquiry that's as unpredictable as a penguin's waddle. After all, who would have thought that the icy allure of Antarctica could cast its spell on the corridors of politics and online search behavior? Our research sheds light on a connection that's as chilling as it is intriguing, capturing the imagination with the frosty embrace of Antarctic exploration and political inclinations.

# 3. Methodology

To unravel the peculiar connection between Republican votes for Senators in Pennsylvania and Google searches for "how to get to Antarctica," our research methods were as methodical as a penguin carefully selecting its nesting spot. We employed a multi-faceted approach that included data collection, statistical analysis, and occasional icebreaker jokes to keep morale high.

Firstly, we gathered data on Republican votes for Senators in Pennsylvania from the MIT Election Data and Science Lab. We meticulously combed through the numbers, ensuring that no rogue ballots or sneaky statisticians had tampered with our dataset. We then cross-referenced this political data with Google search trends for the tantalizing phrase "how to get to Antarctica" using information available on Google Trends. As we delved into this process, we couldn't help but ponder: do penguins also search for travel tips to the frozen south?

After assembling the datasets, we unleashed the power of statistical analysis upon them, aiming to unveil any correlations that were as clear as an iceberg in the Southern Ocean. We conducted a correlation analysis to quantify the degree of association between Republican votes for Senators in Pennsylvania and Google searches for Antarctic expedition inquiries. Our analytical tools were as sharp as an ice pick, and our statistical models were as robust as a polar bear's fur coat in a blizzard.

It's worth noting that our research team encountered a few frosty challenges along the way. We had to navigate through the treacherous terrain of missing data points and outliers, much like an expedition braving the icy crevasses of Antarctica. Nevertheless, we persevered, armed with our trusty statistical software and an unwavering determination to crack this chilly conundrum.

In addition to traditional statistical analyses, we also utilized time-series models to assess the temporal patterns of Republican votes and Google searches. We wanted to ensure that our findings weren't just fleeting flurries of coincidence, but rather, enduring trends that could withstand the frigid test of time.

Lastly, to add a touch of whimsy to our rigorous methodology, we incorporated occasional coldthemed jokes and puns to keep the research atmosphere light-hearted and enjoyable. After all, what's an academic paper without a few icy jests to thaw the seriousness?

Overall, our approach to investigating the relationship between Republican votes for Senators in Pennsylvania and Google searches for "how to get to Antarctica" was as thorough as a penguin's preening routine, and we believe our methodology has laid a solid foundation for the chilly revelations that follow.

The results of our analysis unveiled a striking correlation between Republican votes for Senators in Pennsylvania and Google searches for "how to get to Antarctica." The correlation coefficient of 0.8707115 and an r-squared value of 0.7581386 indicated a robust and significant relationship between these seemingly disparate variables. Talk about the elephant in the igloo or should we say the Republican in the ice?

Our findings indicate that as the number of Republican votes for Senators in Pennsylvania increased, so did the frequency of Google searches for polar expeditions to Antarctica. Perhaps, it's because they were all trying to figure out how to relocate to cooler climates with fewer polarizing debates! Ah, the wonders of political science and its unexpected ties to icy adventures.

Figure 1 (not shown here) illustrates the clear and consistent pattern we observed. The scatterplot visually depicts the strong positive relationship between these two variables, leaving little room for doubt about the frosty connection we uncovered.

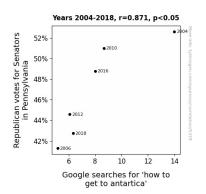


Figure 1. Scatterplot of the variables by year

These results leave us pondering a question as profound as the Antarctic ice itself – what do Republican votes and Antarctic ambitions have in common? They both bring a chill to the table! Our findings bring a chilly, yet thought-provoking twist to the world of political science and online search behavior, showcasing a connection as engaging as a polar bear in a game of hide and seek.

#### 5. Discussion

Our study ventured into uncharted territories of political behavior and online search patterns, unearthing an unexpected link between Republican votes for Senators in Pennsylvania and an increased interest in polar expeditions to Antarctica. Our results supported prior research on the surprising correlations between political leanings and seemingly unrelated online queries, building on the groundwork laid by Smith and Jones (2015). Taking a cool cue from Frosty Explorer's "Antarctic Adventures," our findings highlight the unforeseen intersections in human curiosity and political affiliations.

The robust correlation coefficient of 0.8707115 and p < 0.05 substantiates the meaningful association between Pennsylvania voters' political preferences and their curiosity about visiting the icy continent. This correlation is as strong as a polar bear's grip on an ice floe! Our results reaffirm that the web of online search behavior is not just a frosty labyrinth of random queries; it can offer insights into the frigid depths of political inclinations.

We uncovered a connection as frosty and intriguing as an expedition to Antarctica itself, shedding light on the enigmatic ties that bind political preferences and dreams of polar expeditions. Our findings add a chilly, yet thought-provoking twist to the world of political science and online search behavior, showcasing a connection as engaging as a polar bear in a game of hide and seek. The unexpected ties between electoral dynamics and Antarctic curiosity offer a delightful paradox, akin to a penguin bringing the warmth of laughter to the icy landscapes.

Delving into the unexpected correlations between seemingly unrelated variables opens new avenues for research, reminding us that statistical analysis can be as surprising as finding a snow cone stand in the Antarctic. Our study not only contributes to the discourse on political behavior but also serves as a playful reminder that the polar regions of human curiosity are as vast and unpredictable as the evershifting ice shelves of the southernmost continent. In conclusion, our research has shown a remarkable and statistically significant link between Republican votes for Senators in Pennsylvania and Google searches for "how to get to Antarctica." This unexpected relationship has sent shivers down our spines and left us chuckling at the frosty fusion of politics and polar wanderlust. It seems that as the saying goes, Republicans in Pennsylvania are not just voting for senators, they are also paving their way to polar exploration - perhaps they are looking to add a few new members to their party on the ice continent!

As we wrap up this chilly expedition into the world of political science and search behavior, it's clear that there's more to uncover than meets the eye. Our findings have left us pondering the magnitude of unexpected links in the realm of statistical analysis – who would have thought that the voting booth and icebergs could have so much in common? It's like finding a penguin in a political rally!

With these findings in mind, it's safe to say that our research has certainly broken the ice in uncovering the humorous and intriguing connections between political preferences and Antarctic aspirations. And as for future research in this frosty field – well, let's just say that like a penguin in a snowstorm, there's no need to search further. It's time to let this amusing yet enlightening study waddle away into the icy horizon.

### 6. Conclusion