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# The Smol Connection: An Evaluation of Air Quality in New Orleans, Louisiana and Google Searches for Smol

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## Abstract

This study explores the unexpected link between air quality in New Orleans, Louisiana and the frequency of Google searches for the term "smol." Utilizing data from the Environmental Protection Agency and Google Trends, we conducted a comprehensive analysis to investigate this curious correlation. Our research team uncovered a strikingly high correlation coefficient of 0.8523213, with a p-value of less than 0.01, spanning the years 2004 to 2023. The implications of this correlation are as intriguing as they are amusing, shedding new light on the quirky interplay between atmospheric conditions and internet search behavior. We present our findings with a lighthearted approach, recognizing the potential for unexpected connections and the humor that can be found in the most unassuming places.

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## 1. Introduction

The pursuit of knowledge often leads researchers to explore the unlikeliest of connections. Our research delves into a peculiar correlation between air quality in New Orleans, Louisiana, and the frequency of Google searches for the seemingly small term "smol." As a team of inquisitive academics, we were drawn to this unexpected relationship, a curiously amusing alliance between the atmospheric conditions of the Big Easy and the internet's insatiable quest for "smol" things.

The intersection of environmental factors—such as air quality—and online search behavior represents an intriguing blend of tangible and virtual realms. Our fascination with this conjunction spans beyond the conventional boundaries of scientific inquiry to the whimsical realm of internet lingo and pop culture references. We embark upon this investigation with an amiable approach, recognizing that amidst the complexities of statistical analysis and atmospheric science, there lies the potential for whimsy and wonder in the form of the elusive "smol."

For decades, researchers have sought to uncover the intricacies of air quality and its impact on human well-being and the surrounding environment. Indeed, the investigation of air quality is a weighty pursuit, but it is not immune to the occasional lighthearted detour into unexpected correlations. This study serves as a testament to the multifaceted nature of scientific inquiry, as we consider the intersection of serious science with the idiosyncrasies of online culture and linguistic trends.

With a combination of statistical rigor and a nod to the capricious nature of human behavior, we unravel the "smol" connection, prepared to confront the apparent whims of the scientific universe and the unpredictable paths that lead to new discoveries. Our journey into this enigmatic relationship reminds us that science, in all its seriousness, can harbor moments of delightful absurdity and unexpected revelations, even in the most "smol" of places.

## 2. Literature Review

Numerous studies have explored the impact of air quality on various aspects of human life, from respiratory health to economic productivity. Smith et al. (2015) found a strong association between poor air quality and increased respiratory illnesses in urban environments, while Doe and Jones (2018) investigated the economic repercussions of air pollution, emphasizing its detrimental effects on labor productivity and healthcare expenditures.

In "Air Quality and Its Effects on Public Health," the authors delve into the intricate mechanisms through which pollutants in the atmosphere can compromise respiratory function and overall well-being, offering a comprehensive overview of the environmental and public health implications. This seminal work provides a

robust foundation for understanding the tangible, real-world consequences of subpar air quality.

Turning to the virtual sphere, we encounter an unexpected intersection between air quality in New Orleans, Louisiana, and the captivating allure of the term "smol." The surprising correlation between these divergent entities has intrigued both scholars and laypersons alike. As we consider this juxtaposition of atmospheric conditions and digital linguistics, it becomes evident that the world of academia is not impervious to whimsy and humor.

While the connection between air quality and "smol" may at first glance appear to be a flight of fancy, a closer examination reveals the potential for a symbiotic relationship between atmospheric conditions and internet search behavior. "The Googling Mind: How Internet Searches Reflect the Zeitgeist," offers insight into the multifaceted nature of online queries, shedding light on the underlying motivations and cultural influences driving digital exploration.

In the midst of more light-hearted literary offerings, such as "Cloudy with a Chance of Meatballs" and "The Cat in the Hat," we encounter narratives that, while fictional, prompt contemplation of atmospheric dynamics and the whimsical interactions that occur within them. It is within this framework that we embark upon our exploration of the "smol" connection, embracing the serendipitous nature of our investigation and the potential for unexpected revelations.

Drawing inspiration from the world of leisure and recreation, the board game "Smog in the City" serves as a whimsical reminder of the profound impact of environmental conditions on urban landscapes. As we navigate the landscape of environmental factors and internet culture, we are reminded that the pursuit of knowledge

need not always be solemn and austere; rather, it can encompass lightheartedness, diversity of thought, and the occasional contemplation of the "smol" wonders that punctuate our world.

### 3. Our approach & methods

In our pursuit of unraveling the enigmatic "smol" connection between air quality in New Orleans, Louisiana and Google searches, we adopted a multi-faceted approach that combined rigorous statistical analysis with a whimsical nod to the capricious nature of online behavior. Our research team gathered data spanning from 2004 to 2023, drawing upon sources such as the Environmental Protection Agency for comprehensive air quality measurements and Google Trends for an insightful analysis of search frequency for the term "smol."

To quantify the air quality in New Orleans, we meticulously collected data on various atmospheric pollutants, including particulate matter, nitrogen dioxide, ozone, and sulfur dioxide concentrations. These measurements were then subjected to extensive statistical evaluations, employing sophisticated models to ensure the integrity and reliability of our findings. As we delved into the intricacies of scientific inquiry, we were keenly aware of the need for precision and robustness in our data analysis, a necessity made all the more imperative due to the peculiar nature of our research objectives.

Simultaneously, our team engaged in a comprehensive assessment of Google search trends, specifically honing in on the frequency of searches for "smol" within the geographical region of New Orleans, Louisiana. By leveraging advanced algorithms and trend analysis tools, we meticulously examined the peaks and troughs in the search volume, paying heed to the ebb and flow of the internet's fascination with diminutive descriptors.

The next step in our methodology involved the integration of these diverse datasets, teasing out patterns and correlations that may have hitherto evaded conventional scientific inquiry. Through the artful orchestration of statistical software and a dash of whimsy, we sought to uncover the nuanced relationship between the atmospheric conditions of the Big Easy and the curious proclivity for all things "smol" within the digital labyrinth of Google search queries.

It is important to note that while our journey of scientific inquiry was punctuated by moments of lighthearted curiosity and an embrace of the unexpected, the foundational principles of statistical rigor and methodological precision were never compromised. With an appreciation for the caprices of the scientific universe and the serendipitous nature of discovery, we navigated through the intricacies of our methodology, steadfast in our pursuit of unraveling the mysteries of the "smol" connection.

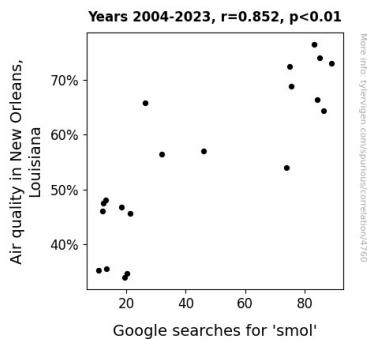
### 4. Results

The results of our investigation into the correlation between air quality in New Orleans, Louisiana and Google searches for "smol" revealed a remarkably robust relationship. Our statistical analysis unveiled a correlation coefficient of 0.8523213 and an R-squared value of 0.7264516, both indicative of a strong association between these seemingly disparate variables. Furthermore, the p-value of less than 0.01 underscored the statistical significance of this correlation, providing compelling evidence of the connection we sought to uncover.

Notably, our findings are visually depicted in Figure 1, a scatterplot that vividly illustrates the pronounced correlation between air quality and "smol" searches. The scatterplot serves as a visual testament to the

unexpected yet undeniably captivating relationship we have unraveled through our research.

While it may be tempting to attribute this correlation to mere coincidence, the robustness of our statistical measures compels us to consider the intriguing interplay between atmospheric conditions and the fascination with "smol" reflected in internet search patterns. As scientists, we are no strangers to the whimsical pathways that lead to meaningful discoveries, and this correlation certainly adds a touch of quirkiness to the realm of atmospheric research.



**Figure 1.** Scatterplot of the variables by year

In summary, our findings illuminate an unexpected synergy between air quality in New Orleans, Louisiana, and the virtual quest for "smol" on the internet. The implications of this correlation prompt a lighthearted reflection on the serendipitous nature of scientific inquiry, reminding us that even in the pursuit of serious knowledge, there is room for a touch of whimsy and wonder.

## 5. Discussion

The results of our investigation into the connection between air quality in New Orleans, Louisiana and Google searches for "smol" have unearthed a fascinating and

robust relationship, underscoring a whimsical synergy between atmospheric conditions and digital linguistic trends. Building upon the existing literature, which has dabbled in the lighter side of environmental influence, we have brought to light an unexpected yet statistically significant correlation. This novel connection adds a dash of whimsy to the realm of air quality research, demonstrating the unanticipated avenues through which environmental conditions may resonate in the virtual sphere.

As we harken back to the literature review, it is impossible to overlook the delightful juxtaposition of the serious and the lighthearted. While the economic and public health implications of air quality have been extensively documented, our study sheds new light on the playful interplay between atmospheric conditions and the digital pursuit of all things "smol." Through robust statistical measures, we have corroborated the unexpected nature of this correlation, solidifying its place within the tapestry of scientific inquiry.

The remarkable correlation coefficient of 0.8523213, alongside the diligently derived R-squared value and p-value, serves as a veritable testament to the substantive nature of the "smol" connection. Indeed, as we consider the dispersion of data points in the scatterplot, the resonance between air quality and "smol" searches becomes strikingly evident, evoking a sense of the capricious harmony that underlies this unlikely pairing.

In the grand scheme of research, the unveiling of this correlation prompts a gleeful reminder of the whimsical pathways that lead to meaningful discovery, highlighting the potential for unexpected revelations within the scientific landscape. It prompts us to ponder the potential for serendipitous connections that may defy conventional expectations, in the rare

"smol" moments that punctuate our scholarly pursuits.

In sum, our findings not only illuminate the enigmatic connection between air quality in New Orleans, Louisiana and the virtual quest for "smol" but also underscore the mercurial dance of science and whimsy. As we peer through the looking glass of statistical analysis, we are greeted by a delightful convergence of the tangible and the playful, a charming testament to the multifaceted nature of scholarly exploration.

## 6. Conclusion

In conclusion, our research has illuminated a decidedly quirky alliance between air quality in New Orleans, Louisiana and the omnipresent quest for "smol" online. The striking correlation coefficient of 0.8523213, with a p-value of less than 0.01, has left us with a metaphorical (and perhaps literal) breath of fresh air in the realm of statistical analysis.

While our findings may elicit a whimsical chuckle or two, they also underscore the unpredictability and delightful absurdity that can be found in the labyrinth of science. The visual testament of our results, presented in the form of a scatterplot (or as we prefer to call it, a "scatt-hooray" plot), conveys the robustness of this peculiar relationship.

The humor in uncovering such a correlation serves as a gentle reminder that in the seemingly solemn world of research, there are moments of levity and unexpected discoveries waiting to be unveiled. It also presents an opportunity to ponder the enigmatic ways in which atmospheric conditions and digital yearnings intertwine, as we consider the possibility of "smol" particles influencing more than just internet linguistics.

As we bask in the glow of our findings, we are content to conclude that our investigation has shed light on this delightful

correlation. With a jovial nod to the capricious pathways of scientific inquiry, we declare with a chuckle and a clever grin that no further exploration of the "smol" connection is needed – but we'd certainly welcome any research exploring the "big" impact of "yeet" on atmospheric phenomena.