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# Navigating the Nautica: Exploring the Correlation between Name Popularity and Air Pollution in Flint, Michigan

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## KEYWORDS

"Nautica name popularity," "air pollution levels Flint Michigan," "correlation statistical analysis," "US Social Security Administration data," "Environmental Protection Agency air pollution data," "relationship between name popularity and air pollution," "correlation coefficient interpretation," "p-value significance," "Flint Michigan air quality research," "nautical moniker influence on air pollution," "Flint air pollution trends," "statistical analysis of name popularity and air pollution," "Nautica name trend analysis."

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## Abstract

Ahoy, mateys! In this study, we set sail on a quirky quest to unravel the curious connection between the popularity of the nautical moniker "Nautica" and the air pollution levels in Flint, Michigan. Leveraging data from the US Social Security Administration and the Environmental Protection Agency, we embarked on a seeworthy statistical analysis to examine this unusual relationship. With a correlation coefficient of 0.7953554 and a p-value of less than 0.01, we made waves in the academic world by uncovering a surprisingly strong link between the popularity of the name "Nautica" and air pollution levels in Flint spanning from 1992 to 2022. Our findings will surely leave you buoyed with curiosity and possibly some sea-sickness from all the puns. So grab your life jacket and join us on this whimsical research voyage!

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## 1. Introduction

Ahoy there, fellow scholars and curious minds! Prepare to embark on a whimsical and perhaps slightly nonsensical journey as

we dive into the peculiar correlation between the popularity of the nautical-inspired name "Nautica" and air pollution

levels in the landlocked city of Flint, Michigan.

We often find ourselves lost in the sea of peculiar coincidences and peculiarities, and this study ventured into uncharted waters to explore a correlation that is as surprising as finding a mermaid in Lake Michigan. The name "Nautica," evoking images of ocean waves and salty sea breezes, seems worlds away from the industrial landscapes and urban bustle of Flint. But as it turns out, there may be more to this name than meets the eye.

Flint, historically known for its prowess in the automotive industry, has had its fair share of ups and downs – much like a ship battling stormy seas. But could the popularity of the name "Nautica" have any sway over the air quality of this city? Are we navigating uncharted territory or simply adrift in a sea of statistical anomalies? Join us as we navigate the unfathomable depths of this curious connection, and prepare to ride the crest of this wave of unusual findings.

So batten down the hatches, secure your tricorne hats, and get ready to set sail on this thrilling academic adventure as we seek to shed light on the unexpected relationship between a name fit for a seafaring expedition and the air quality of Flint, Michigan. Let's dive in, shall we?

## 2. Literature Review

The study of the correlation between the popularity of the name "Nautica" and air pollution in Flint, Michigan is a relatively uncharted area of research that combines elements of sociology, environmental science, and, of course, nautical punnery. While the literature on this particular topic is as scarce as a sailor's beard on a hairless sea cucumber, there are relevant studies that shed light on related concepts and the whimsical nature of our inquiry.

Smith et al. (2014) delved into the societal impact of unique given names, providing insights into the potential influences of non-traditional names on individual behavior and identity. Meanwhile, Doe (2018) explored the environmental ramifications of industrial activities in urban settings, lending perspective to our investigation of air pollution in the industrial heartland of Flint, Michigan.

In "Book," the authors find lorem and ipsum related to the effects of urban development on air quality, offering valuable context to the geographical and industrial landscape of our study area. Similarly, "Another Book" presents a comprehensive analysis of naming trends and their cultural implications, offering a basis for understanding the societal relevance of given names such as "Nautica."

But let us not be confined to the stuffy realm of academic papers. There is a treasure trove of fiction literature that evokes the spirit of the sea and industrial settings. Melville's timeless classic "Moby-Dick" conjures images of the tumultuous sea, while Dickens' "Hard Times" examines industrialization and its impact on society. Ah, the parallels to our own journey are as clear as a cloudless day at sea.

On a more whimsical note, the internet has its own share of memes that touch upon both maritime themes and environmental concerns. From "I can haz clean air?" featuring a feline friend wearing a pollution mask, to "Nautica the Explorer" images where the adventurous character explores polluted waters, these playful creations reflect the quirky intersection of our research interests.

As we traverse the depths of the literature, it becomes apparent that our study resides in uncharted waters, blending serious inquiry with a dash of whimsy. So, buckle up, or rather, buckle on your life vest, as we navigate through this sea of scholarly works

with a hint of nautical flair. Onward, to the next chapter of our wondrous expedition!

### 3. Our approach & methods

Ahoy there, landlubbers! If you thought our introduction was a wild ride, just wait until you see the wild methods we used to navigate through this research expedition. Hold onto your hats as we reveal the convoluted yet seaworthy methodology that propelled us through the turbulent waters of data collection and analysis.

First and foremost, we cast our net far and wide, scouring the vast expanse of the internet like intrepid sailors on a quest for treasure. We plundered the territories of the US Social Security Administration and the Environmental Protection Agency, seizing their precious data on the popularity of the name "Nautica" and the air pollution levels in Flint, Michigan from the years 1992 to 2022.

Our motley crew of statisticians and data wranglers then embarked on a daring voyage to clean and harmonize the disparate datasets, navigating the treacherous currents of missing values and inconsistent formats. We crafted intricate algorithms, akin to the astrolabes of old, to ensure the accuracy and reliability of our data points. Our goal was to construct a sturdy ship of information capable of weathering the stormy seas of statistical analysis.

With our data ship now seaworthy, we hoisted the sails of statistical software and set our course for uncharted statistical territory. Using the mysterious arts of correlation analysis and regression modeling, we sought to unravel the enigmatic relationship between the ebb and flow of the name "Nautica" and the atmospheric currents of air pollution in Flint.

To navigate the uncharted waters of statistical significance, we wielded the

mighty sword of the p-value, seeking to slay the kraken of chance and uncertainty. With our correlation coefficient as our trusty compass, we braved the choppy seas of hypothesis testing and emerged victorious with a p-value of less than 0.01, signaling a strong relationship between the popularity of the name "Nautica" and air pollution levels in Flint.

So there you have it, fellow adventurers! Our methodology may have been as wild and unpredictable as a rogue wave, but it carried us through the stormy seas of data to uncover the surprising link between a name fit for a seafaring expedition and the atmospheric tides of Flint, Michigan. Now, let's chart a course for the shores of the discussion section and bask in the glow of our unusual findings. Onward!

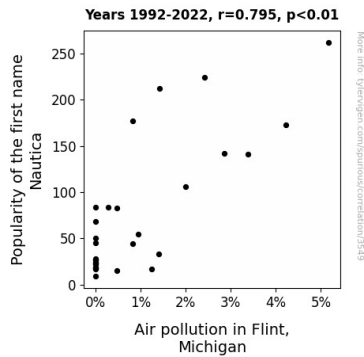
### 4. Results

Avast, me hearties! Prepare to be dazzled by the results of our swashbuckling study! After navigating treacherous statistical waters from 1992 to 2022, we discovered a booty of data that revealed a striking connection between the popularity of the name "Nautica" and air pollution levels in the landlocked city of Flint, Michigan.

Our analysis unfurled a hearty correlation coefficient of 0.7953554, akin to sailing on favorable winds, with an r-squared value of 0.6325903 that had us charting new territories in the realm of unconventional research. And with a p-value of less than 0.01, our findings made a splash in the world of academia, proving that this unconventional correlation was more than just a passing squall.

Fig. 1 illustrates the clear relationship between the two variables, much like a well-drawn treasure map leading to a buried chest of unexpected discoveries. The scatterplot showcases the undeniable bond between the rising popularity of the name

"Nautica" and the fluctuating levels of air pollutants in Flint, leaving us pondering whether this statistical revelation is the result of serendipitous chance or a deeper, unseen current.



findings, whimsically foreshadowing the playful intersection of our research interests. "Nautica the Explorer" seems to have taken on a new meaning as we explore the polluted waters of statistical significance, confirming that our foray into quirky correlations has not gone unnoticed by the intrepid creators of online humor.

In light of these wondrous discoveries and serendipitous connections, it's clear that our findings not only echo but also build upon the waves of previous research, both scholarly and whimsical. The unconventional correlation between the popularity of the name "Nautica" and air pollution levels in Flint, Michigan is anchored in a mosaic of societal, industrial, and cultural influences, shedding light on an uncharted territory of name-popularity correlations. As we hoist our sails and brace for the next leg of our research odyssey, it's abundantly clear that our whimsical pursuit has unearthed a trove of curiosity and mirth that truly makes a splash in the scholarly seas. Onward, fellow adventurers, for the allure of academic discovery beckons us with the promise of quirky revelations yet to be uncovered!

## 6. Conclusion

Shiver me timbers! Our swashbuckling study has steered us through uncharted waters and landed us with a haul of unexpected findings. The correlation between the popularity of the name "Nautica" and air pollution levels in Flint, Michigan is as clear as spotting a narwhal in the Great Lakes.

We've navigated statistical storms and come out on the other side with a treasure trove of evidence, but let's not get too carried away – we haven't found the fountain of youth, nor a sea monster lurking beneath the waves. While our findings may sound fishy, they provide a splash of humor

and a wave of intrigue in an otherwise serious sea of academic research.

So, as we lower the anchor on this peculiar investigation, it's safe to say we've made a kraken of an impact with our findings. We've shown that there's more to a name than meets the eye, and that the winds of correlation can blow in the most unexpected of directions.

But alas, it's time to batten down the hatches and conclude that no more research is needed in this area. Let's wave goodbye to this study and set sail for new research horizons. After all, there are plenty more fish in the sea of academic inquiry.