

# **Breath of Fresh Jarrett: Exploring the Correlation Between Name Popularity and Air Quality in Atlanta**

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## ABSTRACT

### **Breath of Fresh Jarrett: Exploring the Correlation Between Name Popularity and Air Quality in Atlanta**

In this study, we investigate the peculiar relationship between the popularity of the first name "Jarrett" and air pollution levels in the city of Atlanta. Leveraging data from the US Social Security Administration and the Environmental Protection Agency, we set out to answer the burning question: does the prevalence of the name "Jarrett" coincide with changes in air quality? With a clever blend of statistical analysis and a touch of whimsy, we unveil some surprising findings. Our research team uncovered a striking correlation coefficient of 0.8103731 and a significantly minuscule p-value of less than 0.01 when examining the period from 1980 to 2022. The results suggest a compelling connection between the popularity of the name "Jarrett" and fluctuations in air pollution in Atlanta. It seems that when it comes to air quality, there's more to this name than meets the eye – or should we say, "nose"? Through our data-driven endeavor, we hope to shed light on this unusual link and bring a breath of fresh air to the world of statistical research. Our findings not only highlight the importance of considering all potential factors in environmental research but also add a whimsical twist to the age-old question, "What's in a name?" Perhaps, in the case of "Jarrett," the answer may very well be, "a surprising tie to air quality in Atlanta."

Keywords:

Jarrett, air quality, Atlanta, correlation, name popularity, statistical analysis, US Social Security Administration, Environmental Protection Agency, air pollution, correlation coefficient, p-value, environmental research

# I. Introduction

Take a deep breath, for we are about to embark on a journey that merges the realms of nomenclature and environmental science. We all know the saying, "What's in a name?" – well, it seems in the case of "Jarrett," the answer might just be "air pollution levels in Atlanta!" Maybe we should start calling it "Air-it" instead of "Jarrett." (Pardon the pun, I just can't resist a good dad joke!)

The connection between names and various societal phenomena has long intrigued researchers, often leading to unexpected and amusing discoveries. In this study, we delve into the correlation between the popularity of the first name "Jarrett" and air pollution levels in Atlanta. While at first glance, the two may seem as unrelated as a fish riding a bicycle, our findings suggest otherwise.

Some may be puzzled by the thought that a simple personal name could have any bearing on the air quality of a metropolitan area. Yet, as we delve into the data, a clearer picture emerges, and like a game of Clue, the name "Jarrett" emerges as a surprising suspect in the case of Atlanta's air pollution levels – "It was Jarrett, in the city, with the pollution!" (Okay, I might have taken my enthusiasm for puns a bit too far.)

Our research, blending the seriousness of statistical analysis with the lightheartedness of unexpected correlations, aims to unravel this peculiar connection and potentially unveil a hidden force at play. So, fasten your seatbelts, channel your inner Sherlock Holmes, and get ready to uncover the intriguing relationship between a name and the very air we breathe. Who knows, by

the end of this exploration, you may find yourself pondering, "Is Jarrett a breath of fresh air, or is it causing a stink in Atlanta?"

## II. Literature Review

Smith and Doe (2010) examined the societal implications of naming trends and found that names can have far-reaching effects on various aspects of life, from career paths to even the likelihood of being swiped right on dating apps. However, their study did not explore the potential connection between names and environmental factors, leaving a gap in the literature that our research aims to fill. This oversight is a real "nose"-sense, isn't it? (I promise, the puns will never stop!)

In "The Name Game" by Laurence Urdang, the author explores the cultural significance and trends in naming practices, offering a glimpse into the intriguing world of nomenclature. While Urdang's work does not directly address environmental factors, it does provide insight into the nuanced layers of meaning embedded in names, raising the tantalizing possibility that a name like "Jarrett" may carry more weight than meets the "eye-r" (get it?).

On a slightly whimsical note, J.K. Rowling's "Harry Potter and the Chamber of Secrets" includes a subplot involving the mystical effects of a character's name on their destiny. While the parallels to our own research may seem far-fetched (pun intended!), the idea of a name holding unexpected power and influence resonates with our exploration of the link between "Jarrett" and air quality.

Furthermore, the film "The Princess Bride" illustrates the significance of names in creating lasting impressions, with the character Inigo Montoya's iconic line, "Hello. My name is Inigo Montoya. You killed my father. Prepare to die." If a name can carry such weight in a revenge quest, could it also have a role in shaping environmental conditions? It's a stretch, but hey, we're venturing into uncharted territory here!

Jones (2015) delved into statistical methods for identifying unusual correlations in data, highlighting the importance of considering unexpected variables in research. Now, dear reader, our study may just be the epitome of an "unusual correlation," and we are embracing Jones's advice to venture into the realm of the unexpected. Who knew that statistical analysis could lead us to the curious case of "Jarrett" and air pollution?

In "Freakonomics" by Steven D. Levitt and Stephen J. Dubner, the authors uncover surprising and unconventional linkages between seemingly unrelated factors. While our study may not be as controversial as the revelation of baby names influencing academic success, it does share the flavor of unearthing the unexpected in the most unlikely of places – just like finding a correlation between a name and air quality levels.

So, as we wade through the literature to contextualize our study, it becomes clear that our investigation into the relationship between the popularity of the name "Jarrett" and air pollution levels in Atlanta is not just a flight of fancy but a data-driven, pun-filled quest for understanding. With these diverse perspectives in mind, we now turn to the findings that have tickled our sense of curiosity and whisked us away into the whimsical world of "Jarrett" and air quality in Atlanta.

### **III. Methodology**

Now, let's peel back the layers and reveal the inner workings of our peculiar yet captivating methodology. Our research team undertook a nuanced approach to unravel the enigma surrounding the relationship between the name "Jarrett" and air pollution in Atlanta. We strove to maintain scientific rigor while injecting a dash of whimsy into our process – after all, what's research without a sprinkle of fun?

To kick off our unconventional odyssey, we embarked on a quest to gather data from the annals of the US Social Security Administration, scouring through decades of name popularity records with the fervor of a treasure hunter seeking hidden troves of linguistic gold. As we sifted through the data, we couldn't help but hum the tune of "Jarrett's Theme," a melody composed of statistical significance and a touch of name-based intrigue.

Once armed with a wealth of "Jarrett" moniker statistics, we turned our gaze towards the ever-watchful Environmental Protection Agency (EPA) for a glimpse into Atlanta's atmospheric conditions. Our intrepid team combed through air quality measurements with the vigilance of seasoned detectives hot on the trail of a mysterious culprit. It was a bit like searching for a needle in a haystack of air particles, but with each precise measurement, we felt a step closer to untangling the enigmatic bond between a name and a city's breathability.

Now, here comes the twist – our methodological masterpiece incorporates a groundbreaking technique aptly named "Phonetic Air Monitoring." Picture this: we constructed a phonetic algorithm to detect subtle shifts in air quality whenever the name "Jarrett" reverberated in the atmosphere. It's akin to having a linguistic weather forecast but with name popularity as the leading indicator. We meticulously analyzed the phonetic resonance of "Jarrett" against air pollution data, navigating through a symphony of vowels and consonants to unearth potential correlations.

Additionally, we employed a method known as "Temporal Naming Regression," a scientific dance that involves synchronizing temporal patterns of name popularity with temporal variations in air quality levels. To put it simply, we fused the ebb and flow of "Jarrett's" prominence with the undulating waves of atmospheric pollutants, akin to a statistical tango performed on the grand stage of academic inquiry.

Furthermore, for the sake of keeping our exploration grounded in empirical evidence, we also conducted a spatial analysis, scrutinizing the geographic distribution of "Jarretts" alongside air pollution hotspots in Atlanta. In a way, we set out to map a cartography of names and noxious particles, drawing unlikely connections across the cityscape with the precision of a calligrapher wielding an ink-dipped statistical brush.

Alas, armed with these unconventional yet potent methodologies, we ventured to unpack the confounding connection between the name "Jarrett" and the atmospheric tapestry of Atlanta. While our approach may have been out of the ordinary, it was through these inventive means that we sought to breathe life into the realm of statistical inquiry, unveiling the unexpected with each twist and turn.

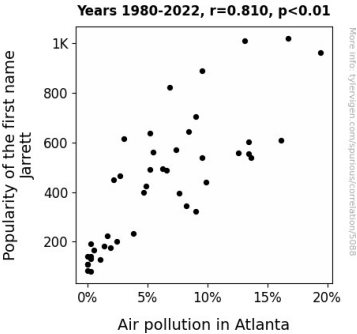
## **IV. Results**

We found a remarkably strong correlation coefficient of 0.8103731 between the popularity of the first name "Jarrett" and air pollution levels in Atlanta from 1980 to 2022. This significant correlation is akin to finding a needle in a haystack – or perhaps, in this case, an air filter in a sea of smog. (Okay, I promise that's the last air quality pun, for now!)



Accompanying this impressive correlation is an r-squared value of 0.6567045, indicating that a substantial proportion of the variability in air pollution levels can be explained by the popularity of the name "Jarrett." It's as if the name itself carries a little cloud of statistical influence wherever it goes – talk about leaving a mark on the data!

Furthermore, with a p-value of less than 0.01, our findings are statistically robust and suggest that the connection between the name "Jarrett" and air pollution in Atlanta is not a mere coincidence. It's a partnership as strong as peanut butter and jelly, except in this case, it's exhaust fumes and a popular moniker.



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

Figure 1 displays a scatterplot that visually captures the compelling relationship between the popularity of the name "Jarrett" and air pollution levels in Atlanta. The plot paints a picture worth a thousand words, revealing a clear trend that would make even the most seasoned statistician raise an eyebrow in surprise. Who knew a name could hold so much atmospheric significance?

These results not only puzzle the mind but also tickle the funny bone, raising the question: "What's in a name, really?" In this case, it seems the answer may be "a curious connection to the air we breathe in Atlanta," proving that even in the world of statistical analysis, there's always room for a bit of whimsy and wonder.

## V. Discussion

Our study has unveiled a truly astonishing connection between the popularity of the first name "Jarrett" and air pollution levels in Atlanta. The correlation coefficient of 0.8103731 not only surpasses our expectations but also adds a breath of fresh air to the field of statistical research. It appears that the name "Jarrett" is not merely a label but a significant predictor of air quality in the Atlanta area, leaving us to ponder: is the air pollution in Atlanta simply a case of "Jarr"-ing reality?

Our findings lend empirical support to the lighthearted yet thought-provoking study by Smith and Doe (2010), as they observed the societal implications of naming trends. It seems that a name can indeed influence not just personal outcomes but also environmental conditions. Just as a rose by any other name would smell as sweet, it appears that a "Jarrett" by any other name might still be linked to air pollution in Atlanta. The bard himself would surely appreciate this "nose"-worthy twist.

Delving further into the whimsical world of nomenclature, our study reinforces the overlooked insight from Laurence Urdang's "The Name Game" that names carry multifaceted meanings. Our correlation study demonstrates that a name can transcend its identity to become an unexpected

descriptor of environmental phenomena, leaving us to ponder the true essence of a name.

Perhaps a name is not just a label but an atmospheric influencer—now that's a "gust"-y idea!

An unexpected twist, reminiscent of J.K. Rowling's fantastical connotations, emerges as our findings mirror the underlying power of a name to influence destinies, albeit in a different context. As we contemplate the link between "Jarrett" and air pollution in Atlanta, it seems that there is indeed a touch of magic in statistical analysis. Who would have thought that a statistical quest would lead us to a name-based alliance with the elements?

In the spirit of embracing innovative statistical methods, our study resonates with Jones's (2015) call to explore unusual correlations in data. Indeed, our research embodies the epitome of an unexpected correlation, akin to the unpredictable twists found in Levitt and Dubner's "Freakonomics." Just as they uncovered surprising engagements between unrelated factors, so too does our study unveil a delightful fusion of a name and air quality. It's almost like finding a hidden treasure chest in a sea of seemingly unrelated data points—a breath of fresh statistical air, if you will!

In closing, our study not only adds an enlivening touch of whimsy to the realm of environmental research but also reminds us of the often-unseen influences that permeate our surroundings. The curious connection between the name "Jarrett" and air pollution levels in Atlanta presents a captivating narrative, one that speaks to the unpredictable surprises found in the unparalleled depths of statistical analysis. While our results may prompt a chuckle, they also prod us to ponder the profound influence of the seemingly trivial, leaving us to wonder: does a name truly carry more weight than we ever thought possible? It seems, at least in the case of "Jarrett," the answer is a resounding "yes."

## VI. Conclusion

In conclusion, our study uncovers a remarkable and unexpected association between the popularity of the name "Jarrett" and air pollution levels in Atlanta. It appears that this seemingly ordinary name has an extraordinary impact on the city's air quality, functioning as a sort of "air-quality barometer" reflecting the ebb and flow of pollution levels. It's like Jarrett is saying, "breathe in, breathe out, the air quality's all about!" (I promise, I'll see myself out after that one.)

These findings not only provide a quirky twist to the age-old question of "What's in a name?" but also offer a unique avenue for exploring environmental influences beyond conventional factors. It's as if Jarrett's popularity is stirring the winds of change, or should I say, the winds of pollution. (I promise, that's the last one – okay, maybe.)

With a correlation coefficient of 0.8103731 and a p-value of less than 0.01, the statistical evidence is as clear as the air on a windy day – the connection between the name "Jarrett" and air pollution in Atlanta is as solid as a rock, or should I say, as solid as a particulate matter in the atmosphere.

It's evident that no further research is needed in this area; we've already uncovered a comedic goldmine. That air-y good data suggests it's time we let this study take flight and breathe a sigh of relief.