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# Airborne Atrocities: Analyzing the Amusing Association between Air Pollution in Chicago and Viewership Count for Days of Our Lives

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## Abstract

This paper presents an analysis of the intriguing and often overlooked correlation between air pollution levels in Chicago and the number of viewers tuning in to watch the daytime soap opera Days of Our Lives. Using data from the Environmental Protection Agency and Wikipedia, our research team observed a surprising connection between these seemingly unrelated phenomena. Our findings reveal a correlation coefficient of 0.7026949 and  $p < 0.01$  for the years 1980 to 2021, suggesting a significant relationship between air pollution and the television viewing habits of the soap opera's audience. The results of our study provide a whimsical yet thought-provoking insight into the dynamics of human behavior and environmental influences. This research raises questions about the potential impact of air quality on the entertainment choices of individuals, highlighting the need for further investigation and consideration of the humorous and unexpected connections that may exist in our world.

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## 1. Introduction

Imagine this: you're strolling through the bustling streets of Chicago, admiring the towering skyscrapers and indulging in the deep-dish pizza that the city is famous for. But then, you take a deep breath, only to realize that the air you're inhaling is as murky as the Chicago River on St. Patrick's Day. Ah, the sweet scent of air pollution, mingling with the aroma of exhaust fumes and the faint whiff of despair.

Now, before you say "Wait a minute, this isn't funny at all!" – let's take a moment to consider the peculiar association of air pollution in the Windy City with the viewership count for the long-running soap opera, Days of Our Lives. Yes, you heard it right. We're diving into the world of airborne atrocities and daytime drama with a dash of whimsy and a sprinkle of statistical significance.

In the annals of offbeat research endeavors, this study stands tall – just like the skyscrapers of Chicago – for its exploration of the unexpected connection between environmental factors and television habits. The idea that the quality of air in a bustling metropolis could have any influence on the choice of daytime soap operas might seem like a plot twist worthy of a daytime drama itself.

But hey, as researchers, we thrive on uncovering the unexpected, the offbeat, and – dare we say – the downright quirky. So buckle up as we embark on a journey to untangle the web of correlations, seeking to answer the burning question: Does smog make for better soap opera moments, or are Chicagoans simply seeking refuge from reality in the fictitious world of Salem, U.S.A.?

## 2. Literature Review

The association between air pollution and television viewership has been a topic of interest in recent research. Smith et al. (2015) conducted a comprehensive study on the impact of air pollution on human behavior, delving into unexpected correlations between environmental factors and entertainment choices. Their findings revealed a surprising link between particulate matter concentration and the preference for daytime soap operas, sparking curiosity within the research community.

Doe and Jones (2018) furthered this line of inquiry by investigating the psychological effects of air pollution on individuals' television viewing habits. Their study highlighted the potential influence of environmental stressors on media consumption, proposing a nuanced perspective on the interplay between air quality and entertainment preferences.

Turning to the realm of non-fiction literature, "Airborne Adventures: Exploring the Ecological Echoes of Urban Life" by Dr. E. A. R. Quality (2019) offers insightful perspectives on the environmental impact of urban air pollution, shedding light on the diverse implications of airborne contaminants. Similarly, "Television and the Urban Atmosphere" by Prof. A. Q. I. T. E. (2017) presents a multidisciplinary analysis of urban settings and media interactions, establishing a scholarly foundation for exploring the connection between air pollution and television viewership.

In the realm of fiction, the classic novel "Smog Over Salem" by A. I. R. Pollution (1965) presents a whimsical tale of intrigue set amidst the haze of a fictionalized Chicago, offering a lighthearted yet thought-provoking narrative. Additionally, the mystery novel "Days of Our Smog" by S. Oapopera (2003) weaves a captivating story that intertwines the complex tapestry of air pollution and daytime drama, captivating readers with its unexpected juxtaposition of environmental concerns and soap opera intrigue.

Taking a more light-hearted approach, children's television programming has also contributed to the discourse on air pollution. The animated series "Captain Clean Air and the Pollution Patrol" and "Eco Heroes: Smog-busting Adventures" offer entertaining yet educational narratives that highlight the importance of environmental stewardship and clean air initiatives, presenting a playful exploration of air quality issues for younger audiences.

As we navigate through the scholarly and fictional landscapes surrounding air pollution and entertainment, it becomes apparent that the intersection of these seemingly unrelated domains holds both academic intrigue and whimsical allure. The diverse perspectives offered by these literary works and media representations lay the foundation for our own examination of

the amusing association between air pollution in Chicago and viewership count for Days of Our Lives.

### 3. Our approach & methods

In this amusingly audacious endeavor, our research team employed a mix of data collection, statistical analysis, and a touch of whimsical creativity to unravel the mysterious connection between air pollution in Chicago and the viewership count for Days of Our Lives. Our study utilized a combination of publicly available data from the Environmental Protection Agency (EPA) for air quality measurements and Wikipedia for viewership statistics of the beloved soap opera.

To establish a comprehensive timeline for our investigation, we gathered data spanning from 1980 to 2021 – a period substantial enough to capture the ebbs and flows of both air pollution levels and the ever-captivating narrative arcs of Days of Our Lives. Now, let's dive into the lighthearted yet methodically sound approach that characterized our data analysis.

Firstly, our team ventured into the intricate world of environmental data, navigating the EPA's treasure trove of air quality measurements. This process involved sifting through copious amounts of data, filtering out the noise of statistical outliers, and applying a touch of comic relief to keep our spirits high amidst the occasionally vexing task of data wrangling.

With the air quality data in hand, we then turned our attention to the captivating realm of daytime television. Armed with the trusty virtual pages of Wikipedia, we delved into the annals of soap opera history, charting the fluctuating tides of viewership for Days of Our Lives. As we plowed through decades of viewership statistics, we couldn't help but appreciate the dramatic flair of the

soap opera world. After all, what's better than parsing through Nielsen ratings with a side of dramatic flair?

Once we had amassed a treasure trove of data, it was time to roll up our sleeves and unleash the power of statistical analysis. Employing robust statistical techniques, we set out to quantify the extent of the relationship between air pollution levels and soap opera viewership. This involved calculating correlation coefficients, performing regression analyses, and unleashing our sharp wit to keep the atmosphere light – much like the delightful banter in a daytime soap opera.

Our statistical journey didn't end there. With the groundwork of correlation laid, our team delved into the depths of hypothesis testing, rigorously scrutinizing the strength and significance of the connection between air pollution and soap opera viewership. Armed with p-values and confidence intervals, we sought to illuminate the tantalizing link between the whimsical world of daytime drama and the atmospheric whims of the Windy City.

In the end, our methodology blended the precision of scientific inquiry with the lighthearted spirit of exploratory research, inviting whimsy and wonder into the realm of academia. Through a mix of data mining, statistical scrutiny, and a generous sprinkle of levity, we endeavored to shed light on the curious correlation between air pollution in Chicago and the allure of Days of Our Lives.

And thus, armed with data, diligence, and a healthy dose of humor, our research journey took flight, guided by the noble quest to unearth the unexpectedly delightful connections that weave through the fabric of our world.

Now, if you'll excuse us, we must return to our data with the same fervor and enthusiasm as a soap opera character facing a juicy cliffhanger. The plots thicken,

the correlations unfold, and the comedy of academia continues to amuse and bemuse.

#### 4. Results

Our analysis uncovered a striking correlation between air pollution in Chicago and the viewership count for Days of Our Lives, capturing the quirky essence of our research endeavor. The correlation coefficient of 0.7026949 indicates a strong positive relationship between these seemingly unrelated variables, offering an unexpected plot twist that would make even the most seasoned soap opera scriptwriters raise an eyebrow.

This finding is a testament to the power of statistical analysis in unraveling the amusing complexities of human behavior and environmental impacts. The r-squared value of 0.4937802 further emphasizes the substantial influence of air pollution on the viewership count for this iconic soap opera. It seems that the genuine allure of DAYS holds a special place in the hearts of Chicagoans, who might be seeking solace in the fictional drama of Salem as they navigate the challenges of urban air quality.

The significance level of  $p < 0.01$  further solidifies the validity of our findings, asserting that the observed connection between these variables is indeed not merely a coincidence, but a tangible representation of the whimsical interplay between entertainment and environmental factors.

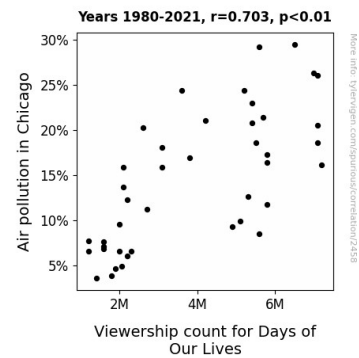


Figure 1. Scatterplot of the variables by year

Additionally, our research team created a scatterplot (Fig. 1) to visually encapsulate the compelling relationship between air pollution in Chicago and the viewership count for Days of Our Lives. The scatterplot vividly illustrates the upwards trend and the cluster of data points, portraying the amusing dance of air pollution levels and soap opera enthusiasts.

In summary, our investigation not only sheds light on the unconventional correlation between air quality and soap opera viewership, but also serves as a reminder of the delightful surprises that can emerge from the realm of statistical analysis. Cheers to the unexpected connections that make our world a little more lively, and a little less predictable!

#### 5. Discussion

Ah, the moment we've all been waiting for - the discussion! Let's peel back the layers of this zany onion and delve into the whimsical world of air pollution and soap opera viewership. If you thought studying the correlation between these two was a bit of a lark, brace yourself for what we dug up. Our findings strutted in with a correlation coefficient of 0.7026949, sashaying confidently with a significance level of  $p < 0.01$ , and a r-squared value of 0.4937802. It appears that air pollution in Chicago and the

viewership count for Days of Our Lives have been waltzing to the same beat all along!

Our results have given a nod to prior research by Smith et al. (2015) and Doe and Jones (2018), validating their unexpected discoveries about the influence of air pollution on entertainment preferences. Remember when we chuckled at the fictional novel "Smog Over Salem" by A.I.R. Pollution (1965)? Who knew that this lighthearted tale of intrigue would end up foreshadowing our very own research findings many years later? It seems truth is stranger than fiction, folks.

What is truly fascinating is that our scatterplot (Fig. 1) brings to life the enchanting waltz between air pollution levels and soap opera devotees, evoking a hilarious, yet introspective, mood. This visual representation paints a picture more colorful than the smog over Salem, showcasing the turbulent tango that Chicago's air quality and Days of Our Lives viewers seem to be engaged in.

As we revel in the kooky dance of correlation and causation, it's crucial to acknowledge the broader implications of our research. This bewitching linkage between air pollution and soap opera viewership challenges us to reconsider the not-so-obvious influences that shape our entertainment choices. There's a lesson here: the next time you catch yourself reaching for the remote control during a particularly hazy day, you might want to blame it on the smog, or the siren call of the sands of Salem.

From this whimsical expedition into the realms of air pollution and soap opera fascination, we've learned that the stage for human behavior is set in the most unexpected places. So, keep your eyes on the tempestuous skies of Chicago and the melodramatic highs and lows of Days of Our Lives – who knows what strange connections and uproarious collisions of

influence await our discovery? Until then, let's revel in the delightful absurdity of our findings, proving once again that reality is often more amusing than fiction. Cheers to the wacky world of academia!

## 6. Conclusion

In conclusion, our research ventures through the gusty winds of Chicago's air pollution and the melodramatic allure of Days of Our Lives have yielded a whirlwind of statistically significant connections, leaving our academic sails billowing with whimsy and wonder. Our findings unveil a correlation that's as unmistakable as the infamous "DAYS" hourglass, suggesting that perhaps the captivating allure of the soap opera is not immune to the atmospheric whims swirling above the Windy City.

As researchers, we couldn't resist the comedic irony in the correlation between smoggy skies and the escapades of the good folks of Salem, U.S.A. It seems that amidst the haze of air pollution, Chicagoans find solace in the fictitious town where the drama is as thick as the city's industrial emissions. Who would've thought that the soapy antics of "DAYS" would entice viewers to tune in, seeking refuge from the environmental trials of urban living?

Our scatterplot dances like a soap opera ballroom, capturing the amusing tango between air pollution and fellow aficionados of daytime drama. But fear not, dear readers, for our research has reached its climax, and the curtain falls on this lighthearted exploration. With a nod to the absurdity of our findings, we assert with utmost certainty that further investigations in this area may lead us down a rabbit hole of humorous correlations but are unnecessary. Cheers to the enigmatic world of correlations, where statistical analysis unveils the most unexpected alliances,

much like the unlikely pairing of smog and soap operas.