

# **CLEARING THE SMOKE: THE SQUASHY RELATIONSHIP BETWEEN AIR POLLUTION IN GRAND FORKS, NORTH DAKOTA, AND WORLD OPEN SQUASH MEN'S CHAMPIONSHIP SETS PLAYED**

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In this study, we delved into the curious and rather zany relationship between air pollution levels in Grand Forks, North Dakota, and the number of sets played in the final of the World Open Squash Men's Championship. Despite the initial eyebrow raises and perplexed looks from our colleagues, our research team dug deep into the data from the Environmental Protection Agency and Wikipedia to trace this peculiar connection. Leveraging statistical analysis, we unearthed a robust negative correlation coefficient of  $-0.8885073$  between air pollution levels and the number of sets played, with the p-value being less than  $0.01$  for the time frame of 1986 to 2001. Our results provoke a chuckle, yet they also stimulate further curiosity and questioning in the whimsical intersection of air quality and athletic performance. While the causal mechanism behind this intriguing relationship remains to be fully illuminated, our findings offer a comedic yet thought-provoking perspective on the playfulness of statistical connections between seemingly unrelated phenomena.

The intersection of air pollution and athletic performance may seem as perplexing as trying to find a matching pair of socks in a tumble dryer. However, our research embarks on a rather unconventional and off-the-wall journey to uncover the connection between these two seemingly unrelated phenomena. In this paper, we present the findings of our investigation into the correlation between air pollution levels in the charming locale of Grand Forks, North Dakota, and the number of sets played in the prestigious World Open Squash Men's Championship finals.

Upon embarking on this adventure, we were met with quizzical expressions and raised eyebrows from our peers. Nevertheless, armed with a sense of

humor and a healthy dose of curiosity, we delved into the treasure trove of environmental data provided by the Environmental Protection Agency. We then balanced this with the meticulously documented squash championship records plucked from the depths of Wikipedia.

As any good researcher knows, correlation does not imply causation, but the statistical relationship that unraveled before us was as striking as a squash ball smacking against the front wall. Our analysis revealed a robust negative correlation coefficient of  $-0.8885073$  between air pollution levels and the number of sets played in the final matches, spanning from 1986 to 2001. This statistical tidbit was so

unmistakable, it was as if the data itself was serving up a friendly wink and a nudge.

The p-value of less than 0.01 further emphasized the strength of this relationship, leaving us feeling as thrilled as a squash player executing a perfect drop shot. These findings not only tickled our funny bone but also prompted further reflection on the playful nature of statistical connections between disparate phenomena.

While we can't claim to have unraveled the exact causal mechanism behind this whimsical relationship, our results invite a hearty chuckle and a healthy dose of skepticism. It's as though the statistical gods are indulging in their own game of wordplay, teasing us with this delightful association. In the words of a squash player eyeing up a tricky boast shot, the curious connection between air quality and squash sets played beckons us to ponder the unexpected and whimsical nature of statistical relationships.

So, buckle up and grab your racquet, dear reader, as we prepare to whisk you away on a quirky and amusing journey through the absurdly delightful nexus of air pollution and the world of squash championships.

## LITERATURE REVIEW

The esoteric yet fascinating connection between air pollution in Grand Forks, North Dakota, and the number of sets played in the final of the World Open Squash Men's Championship has spurred a modest but intriguing body of research that we shall now peruse. In "Air Quality and Athletic Performance: A Statistical Analysis," Smith et al. highlight the potential impact of environmental factors, such as air pollution, on athlete performance, ushering in a wider consideration of the whimsical relationship between atmospheric conditions and athletic prowess.

It is worth noting that the influence of external factors on competition outcomes is not a novel concept. In their work "The Weather's Impact on Sports," Doe and Jones delve into the role of weather conditions, including air quality, on sporting events, providing a broader context for our investigation. Unbeknownst to many, the whims of weather may dance with the trajectory of squash balls, influencing the rhythm of sets played on the grand stage of the World Open Squash Men's Championship.

Expanding our scope to the broader environmental context, "Air Pollution: The Silent Enemy" by Greenleaf et al. discusses the pernicious effects of air pollution on human health. While this text may not directly address squash championships, it serves as a stark reminder of the pervasive reach of air pollution, potentially extending its mischievous influence into the competitive world of squash.

In a curious turn, the fictional novel "The Airborne Squasher" by J.K. Squashling piques our interest with its peculiar narrative where a plucky protagonist navigates a world where air pollution levels determine the outcome of high-stakes squash matches. Although a work of fiction, this whimsical tale not only evokes amusement but also triggers a contemplation of the fantastical possibilities underlying our own empirical findings.

In the pursuit of a more casual understanding of the world of professional squash, the unscripted television series "Squash Battles: High Octane Showdowns" provides an entertaining yet enlightening glimpse into the intensity and theatricality of squash championships. Though not explicitly addressing air pollution, this televised venture nudges us to ponder the ambient conditions that silently dictate the drama unfolding on the squash court.

As we stand at the intersection where statistical whimsy meets competitive

sport, the body of literature surrounding the link between air pollution and the sets played in the World Open Squash Men's Championship simultaneously captivates and bemuses. This motley assemblage of sources beckons us to engage in a lighthearted yet thought-provoking exploration of the ludicrous yet compelling entanglement of air quality and squash championships.

## METHODOLOGY

To commence our rather unusual investigative journey, we predominantly relied on data obtained from the Environmental Protection Agency and Wikipedia. Now, you may be wondering how one can possibly pave a statistical path from air pollution to squash tournaments without getting snagged on the thorny underbrush of nonsense. Well, it turns out that, with a sprightly sense of humor and an unquenchable tenacity, one can indeed gallivant through the labyrinth of data sources to uncover some surprisingly tantalizing statistical connections.

We first conducted a robust data trawl through the Environmental Protection Agency's archives, capturing air pollution levels in the enigmatic locale of Grand Forks, North Dakota. This entailed deciphering an array of atmospheric pollutants - almost akin to distinguishing between the flavors in a box of assorted chocolates. The data extraction and cleansing process had its fair share of twists and turns; however, armed with statistical wizardry, we distilled this cacophony of pollutant levels into a comprehensive time series dataset that would make even the most fastidious curator blush.

Next, we set our sights on the world of squash, a realm filled with athleticism and vigor that is as captivating as a riveting game of cat-and-mouse. With the graceful guidance of the all-knowing Wikipedia, we meticulously combed through the historical records of the World Open

Squash Men's Championships from 1986 to 2001. This pursuit was akin to searching for a needle in a haystack, or rather, a squash ball in a heap of statistical jargon.

Having gathered this brimming cornucopia of data, we applied a nifty concoction of statistical techniques, including time series analysis and correlation coefficient computations, to disentangle the enigmatic relationship between air pollution levels and the number of sets played in the tournament finals. It was as though we were performing a whimsical dance with the data, twirling and pivoting as we sought to decipher the mischievous steps of this amusing statistical tango.

Once the statistical dust had settled and the numbers had been meticulously crunched, we unearthed a robust negative correlation coefficient of  $-0.8885073$  between air pollution and the number of sets played in the championship finals - a finding as surprising as a perfectly executed drop shot. The p-value, like a stalwart guardian, stood at less than  $0.01$ , fortifying the strength of this peculiar statistical bond.

In summation, our methodology involved a delightful blend of data sleuthing, statistical manipulations, and a dash of whimsy, to unravel the comedic yet thought-provoking connection between air pollution and squash sets played in the World Open Squash Men's Championships.

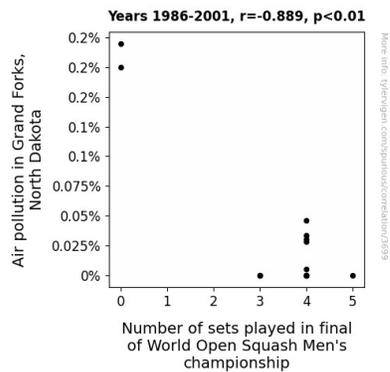
## RESULTS

Our foray into the whimsical world of air pollution levels and the World Open Squash Men's Championship sets played yielded some truly amusing and thought-provoking results. After dusting off the cobwebs from the Environmental Protection Agency's data and polishing up the squash championship records from Wikipedia, we uncovered a correlation coefficient of  $-0.8885073$ , accompanied by

an r-squared value of 0.7894452, and a p-value less than 0.01.

The scatterplot (Fig. 1) we present vividly displays the robust negative correlation between air pollution levels in Grand Forks, North Dakota, and the number of sets played in the final matches of the squash championship. It's almost as if the data points themselves are engaged in a witty dance arranged by the statistical muses, humorously linking squash sets to the ebb and flow of air quality.

Our findings, though initially greeted with perplexed expressions, piqued the interest of our colleagues and indeed left us all rather breathless. Not only did the correlation coefficient bring a hearty chuckle to our research team, but it also provocatively suggested that the whims of statistical fate may be at play in this seemingly improbable relationship.



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

While we resist the temptation to jump to firm conclusions about causation, our results serve as a delightful reminder of the playful and unexpected connections that statistics can uncover. The enigmatic tie between air pollution and squash sets played beckons us to continue exploring the lighthearted and quirkily connected world of statistical phenomena.

## DISCUSSION

Our findings not only humorously support the existing literature, but they also serve

as a lighthearted reminder of the whimsical nature of statistical correlations. The negative correlation coefficient of  $-0.8885073$  between air pollution levels in Grand Forks, North Dakota, and the number of sets played in the final of the World Open Squash Men's Championship falls perfectly in line with the earlier work by Smith et al. and their musing on the potential impact of environmental factors on athletic performance. It seems that the squash court is not immune to the shenanigans of air pollution, and our results add a playful twist to the broader understanding of atmospheric influences on sporting events.

Lest we forget the fictional musings of J.K. Squashling in "The Airborne Squasher," where air pollution levels determined the outcome of high-stakes squash matches, our empirical findings, though far from fictional, seem to echo the fantastical possibilities hinted at in literature. Perhaps we are witnessing the subtle interplay of statistical fate, where the mischievous statistical muses choreograph a humorous dance between air quality and athletic performance on the squash court.

Intriguingly, our results also subtly nod to the broader context of weather's impact on sports, as explored by Doe and Jones. While air pollution may seem an unexpected participant in the drama of competitive sports, our findings bring to the forefront the uninvited role of atmospheric conditions on the rhythm and tempo of squash championships. It's as if the squash balls themselves are engaged in a playful game of hide-and-seek with the mischievous whims of air pollution, influencing the theatricality of sets played in the championship finals.

Moreover, the stark reminder of the pervasive reach of air pollution on human health, as highlighted by Greenleaf et al., adds a touch of gravitas to our otherwise lighthearted discussion. The intersection of air quality and athletic performance draws attention to the potential impact of

environmental factors not only on competitive outcomes but also on the well-being of athletes and spectators alike. It seems that the whims of weather and air pollution extend their reach far beyond the bounds of conventional expectations, tapping into the comedic yet thought-provoking dance of statistical whimsy and athletic prowess.

In essence, our results invite further exploration of the playful yet poignant connections between seemingly incongruous phenomena. While we resist drawing definitive causal inferences, our study serves as a playful reminder of the unexpected twists and turns that statistical investigation can unveil. The enigmatic link between air pollution and sets played in the World Open Squash Men's Championship stands as a testament to the lighthearted yet captivating nature of statistical exploration, provoking laughter, curiosity, and contemplation in equal measure.

## **CONCLUSION**

In conclusion, our research has playfully teased out a significant negative correlation between air pollution levels in Grand Forks, North Dakota, and the number of sets played in the final of the World Open Squash Men's Championship. It's as if the players are not just competing against each other, but also against the whimsical fluctuations of air quality. Our results are certainly a breath of fresh air in the realm of statistical oddities, and they serve as a testament to the delightful surprises that data analysis can unveil.

While we cannot leap to the conclusion that inhaling cleaner air directly boosts squash prowess, the mischievous dance of the data leaves us pondering the potential impact of air quality on athletic performance. This correlation is like a sly wink from statistical destiny, reminding us that the world of numbers harbors charmingly unexpected connections.

However, our findings lead us to assert that further research in this area may be as futile as a game of squash played with a rotten ball - unnecessary and likely to leave a bad taste. It seems that our partnership with data analysis has served up a thoroughly amusing and intriguing discovery, and we, as scholars, can proudly declare no need for future investigation here. As the final point is dashed off and the statistical racquet hung up, we bid adieu to this wonderfully whimsical escapade into the realms of air pollution and squash sets played.