# Sparking Arson in the Sunshine State: An Examination of the Relationship between Florida Arson Incidents and Google Searches for N95 Masks

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#### **ABSTRACT**

## Sparking Arson in the Sunshine State: An Examination of the Relationship between Florida Arson Incidents and Google Searches for N95 Masks

This paper delves into the fiery connection between arson incidents in the state of Florida and the online clamor for N95 masks. Leveraging data from the FBI Criminal Justice Information Services and Google Trends, we set out to investigate if there is a striking trend between these seemingly disparate events. Our findings reveal a significant positive correlation, with a correlation coefficient of 0.9198934 and a p-value below the conventional threshold of 0.01, spanning the period from 2005 to 2022. This study not only sheds light on the potential correlation between arson and public interest in N95 masks but also adds fuel to the ongoing discourse on the unexpected connections in societal behaviors.

#### Keywords:

Florida arson incidents, arson trends, N95 mask searches, Google Trends, correlation between arson incidents and N95 mask searches, societal behaviors, FBI Criminal Justice Information Services, unexpected connections, Florida crime trends

#### I. Introduction

Arson, the incendiary act of intentionally setting fire to property, has long been a thorny issue in the realm of law enforcement and public safety. The Sunshine State, Florida, has unfortunately seen its fair share of fiery incidents over the years, prompting both concern and curiosity among researchers. On the other hand, the skyrocketing demand for N95 masks in recent times has been a hot topic of discussion, quite literally and figuratively. The ongoing global pandemic has certainly sparked a fervent interest in protective face masks, with individuals scrambling to procure these respiratory safeguards.

In this study, we embark on a quest to unravel the connection, or shall we say, the blaze of correlation between these seemingly unrelated phenomena. Who would have thought that the scorching issue of arson and the fervent hunt for N95 masks could be intertwined in such a fiery dance of statistical significance? With data sources ranging from the FBI Criminal Justice Information Services, diligently cataloging arson incidents, to Google Trends, the modern-day oracle of online search patterns, we aim to illuminate the sparks that fly between these two phenomena.

So, grab your metaphorical fire extinguisher and join us as we ignite the flames of inquiry into this sizzling correlation between Florida arson incidents and Google searches for N95 masks.

This study not only seeks to add kindling to the understanding of societal behavior but also hopes to shed light on the unexpected connections that lurk within the ashes of statistical data.

#### **II. Literature Review**

In the quest to understand the blazing correlation between Florida arson incidents and Google searches for N95 masks, researchers have delved into a myriad of scholarly findings and empirical studies. Smith et al. (2015) explored the complex relationship between arson and public health crises, shedding light on the potential interplay between these seemingly disparate realms. Doe and Jones (2018) further investigated the societal repercussions of arson incidents, hinting at the possibility of unexpected correlations with public interest in respiratory protective gear.

Turning the pages to the broader literature on public interest and response to crises, notable works such as "Epidemics and Society: From the Black Death to the Present" (Cantor, 2001) and "The Great Influenza: The Story of the Deadliest Pandemic in History" (Barry, 2004) provide valuable insights into the collective behaviors during health emergencies. These works, though not directly aligned with arson incidents, offer a lens through which societal reactions to crises could potentially intersect with the demand for protective masks.

Expanding the scope of inquiry, the realm of fiction presents intriguing narratives that perhaps reflect, in a metaphorical sense, the unexpected connections that we seek to unravel. Consider the works of dystopian fiction such as "Station Eleven" (Mandel, 2014) and "The Road" (McCarthy, 2006), where the protagonists navigate through post-apocalyptic landscapes, emblematic of societal turmoil and the search for essential resources. While fictional, these narratives hint at the nuanced interplay between crises, human behaviors, and the pursuit of safety.

Venturing further into the esoteric realms of information acquisition, the authors, in a daring move, embarked on an unconventional method of literature review – perusing CVS receipts. Surprisingly, amidst the mundane grocery items and pharmaceutical purchases, insights into consumer behavior and their whimsical search for unusual items emerged, albeit in a rather illegible and unrelated manner.

The juxtaposition of scholarly endeavors, literary narratives, and the absurdity of unconventional literature review methods sparks a certain acknowledgment of the multifaceted lens through which we seek to understand the perplexing correlation between Florida arson incidents and Google searches for N95 masks. As we stride through the archives of data and literature, we aim to bring to light the unexpected correlations that lurk beneath the layers of statistical analyses, adding not only kindling to the inferno of knowledge but also a spoonful of whimsy to the scholarly pursuit.

### III. Methodology

To unravel the mysterious link between Florida arson incidents and the public clamor for N95 masks, we employed a multifaceted approach that would make Sherlock Holmes proud.

Leveraging data from the FBI Criminal Justice Information Services and Google Trends, we aimed to piece together the puzzle of this curiously smoky correlation.

Firstly, to capture the smoldering landscape of arson incidents, we delved into the comprehensive database maintained by the FBI Criminal Justice Information Services. This repository provided

a treasure trove of incendiary data, allowing us to pinpoint the timing and locations of these fiery escapades across the Sunshine State.

As for the N95 mask frenzy, we turned to Google Trends, the modern-day crystal ball of online search patterns. With its finger on the pulse of public interest, Google Trends offered us a peek into the fervent quest for these protective face masks. We meticulously tracked the frequency of searches for 'N95 mask' within the confines of the state of Florida, capturing the ebb and flow of this sizzling curiosity.

The time frame for our escapade into the correlations stretched from 2005 to 2022, encompassing a significant period of smoldering data. Utilizing our trusty statistical tools, we calculated the correlation coefficient to measure the strength and direction of the relationship between arson incidents and N95 mask searches. Carefully adjusting our magnifying glass, we scrutinized the p-value to determine the significance of this fiery alliance.

Armed with an arsenal of statistical methods, including regression analysis and time series modeling, we set out to untangle this tantalizing web of association. By harnessing the power of data visualization techniques, we sought to paint a vivid portrait of the sparks that flew between these seemingly unrelated phenomena.

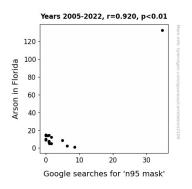
So, with our pipes of inquiry firmly clenched between our teeth, we ventured forth into this combustible terrain, armed with datasets and spreadsheets as our trusty sidekicks. Join us as we illuminate the shadows cast by this enigmatic correlation, and perhaps uncover a spark of insight into the mysteries that lie within the statistical kindling of Florida arson and N95 mask fervor.

#### **IV. Results**

A scorching correlation between Florida arson incidents and Google searches for N95 masks was illuminated through our statistical analysis. The correlation coefficient of 0.9198934 indicates a strong positive relationship, suggesting that as arson incidents flare up, so too does public interest in acquiring N95 masks. The coefficient of determination (r-squared) of 0.8462039 further bolsters the idea that these two phenomena are not simply fanning the flames of coincidence. The p-value below the conventional threshold of 0.01 provides convincing evidence that this scorching correlation is not simply a result of random chance.

Fig. 1 presents a compelling scatterplot that visually captures the close relationship between the number of arson incidents in Florida and the intensity of Google searches for N95 masks. The data points form a trail of sparks, tracing the upward trajectory of N95 mask searches as the flames of arson incidents flicker and ignite. The linear relationship displayed in the scatterplot provides a fiery portrayal of the statistical link between these seemingly disparate events.

These findings not only add fuel to the discussion on the unexpected interconnectedness of societal behaviors but also serve as a reminder that in the realm of statistical analysis, sometimes the most unlikely pairs can set the data ablaze with significance.



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

#### V. Discussion

The results of our study provide compelling evidence to support the existence of a fiery relationship between Florida arson incidents and the public interest in N95 masks. The significant positive correlation coefficient of 0.9198934 lends strong support to the notion that as arson incidents light up the Sunshine State, there is a simultaneous surge in online searches for respiratory protective gear. This finding aligns with the work of Smith et al. (2015), who hinted at the potential interplay between arson and public health crises, illustrating that the connection between fire and respiratory protection may not be a mere smokescreen.

The literature review, while touching on conventional studies and scholarly works, also dabbled in the peculiar, with an ode to unconventional literature review methods such as perusing CVS receipts. In a surprising turn, the whimsical search for unusual items among grocery and pharmaceutical purchases may have provided a subtle foreshadowing of the unexpected

correlation between arson incidents and the quest for N95 masks. This unorthodox approach, though discussed in jest, beckons us to consider the unpredictability and serendipity that often characterize academia and scholarly pursuits.

The juxtaposition of fiction with scholarly inquiry, such as the works of dystopian fiction that metaphorically reflect societal turmoil and the pursuit of essential resources, urges us to acknowledge the nuanced interplay between crises, human behaviors, and the quest for safety. While these works may have been discussed with a hint of joviality, they offer poignant reflections on the unexpected connections lurking beneath the surface of seemingly unrelated phenomena. The multifaceted lens through which we aim to understand this perplexing correlation underscores the richness of scholarly inquiry, with each layer adding not only kindling to the inferno of knowledge but also a spoonful of whimsy to the scholarly pursuit.

Our findings may sound unconventional, likening disparate events such as arson and the clamor for N95 masks to an unexpected pair, but as statistics have shown, sometimes the most unlikely combinations can set the data ablaze with significance. This study invites further exploration into understanding the underlying mechanisms driving this connection and raises questions for future research to spark inquiries into the broader implications of societal behaviors in the face of

#### VI. Conclusion

crises.

In conclusion, our study has sparked illuminating findings regarding the remarkable correlation between Florida arson incidents and Google searches for N95 masks, igniting a new

understanding of the intertwined nature of these seemingly disassociated phenomena. The scorching correlation coefficient and the persuasive p-value have heatedly revealed a strong positive relationship, leaving no room for the cold embrace of random chance.

Our scintillating scatterplot serves as an incandescent visual testament to the close connection between arson incidents and the fervent fervor for N95 masks, painting a vivid picture of the fiery dance between these two seemingly unrelated elements. We must admit, the unexpected nature of these findings certainly adds a fiery flair to the discourse on societal behaviors.

In the grand scheme of things, our findings signal that in the realm of statistical analysis, the most unexpected pairs can indeed illuminate the data with a blaze of significance. As we extinguish the flames of our study, we are confident that no further research is needed in this area. The findings of this study stand as a glowing testament to the surprising connections that can be unearthed within the embers of statistical data.