

# **BURNING LOVE: EXPLORING THE RELATIONSHIP BETWEEN ARSON IN NEW MEXICO AND XKCD COMICS ON ROMANCE**

**Colton Hamilton, Aaron Taylor, Gabriel P Thornton**

Institute for Studies

In this study, we delve into the intriguing and yet unexplored connection between instances of arson in the state of New Mexico and the publication of xkcd comics centered around romance. As we ignited our curiosity, we utilized data from the FBI Criminal Justice Information Services and harnessed the power of AI analysis to scrutinize the comic strips from xkcd. Our findings revealed a remarkable correlation coefficient of 0.8782159 and a statistically significant p-value of  $< 0.01$  for the years 2007 to 2022. With tongues firmly in cheek and lab coats on, we embarked on this journey to separate the "heat of the moment" from the "spark of love." Our results, though blazingly remarkable, left us pondering: why are arson rates in New Mexico positively associated with the appearance of xkcd comics on matters of the heart? Perhaps there is a fiery passion for romantic math jokes that ignites an uncontrollable urge to set things ablaze - or maybe there's just something in the water. Better not to "brush fire" this aside, as these findings present a burning need for further investigation. In conclusion, the fiery bond between the occurrence of arson in New Mexico and the wittily romantic xkcd comics deserves further scrutiny, and we hope this study kindles a fervor for further exploration in both the scientific and humorous communities. After all, when it comes to understanding love and fire, it's better to "roast" than to "smolder" in ignorance.

The study of arson and its underlying factors has predominantly revolved around socioeconomic conditions, urban planning, and law enforcement strategies. However, an intriguing and perhaps combustible correlation has caught the attention of researchers in recent years - the relationship between instances of arson in New Mexico and the publication of xkcd comics that depict themes of romance. This unexpected connection has left many scratching their heads and wondering "is there smoke without fire, or are we just fanning the flames of speculation?"

As the late-night comedy shows observe, "This research is heating up!" We found ourselves diving into a sea of data, armed with statistics, machine

learning, and a hefty dose of humor. Our analysis spanned from the desert landscapes of New Mexico, where the heat can be truly infernal, to the internet's abundance of stick-figure-laden comic strips. The efforts resulted in a temperature-raising discovery that invites skepticism and perhaps a few chuckles - a correlation that could very well set the scientific community ablaze with discussion.

It's not every day that researchers get to explore smoky criminal statistics and playful webcomics in the same breath! One might say we ignited a blaze of curiosity that's spreading faster than a wildfire. But fear not, dear reader, for we have the extinguisher of skepticism and the fire blanket of rigorous analysis ready

at hand. After all, the last thing we need is for our conclusions to go up in smoke!

The initial spark of this study was set ablaze by the awareness that xkcd, like the best of romantic relationships, has a knack for blending humor with intelligence. From the complexities of human emotions to the absurdity of life's mundane quirks, xkcd has navigated the countless twists and turns of romance with a comic-strip expertise that borders on the scientifically irresistible. The question then became, "Could these comics be igniting more than just laughter in the hearts of their readers?"

We realize that our findings might raise a few eyebrows, perhaps even prompt a groan or two. But we assure you, dear reader, that our intentions are as pure as the driven snow - although we can't promise the same for some of our puns. With all puns intended, this paper aims to light the way for future research into the unexpected connections that await exploration in both the dark alleys of criminology and the lighthearted amusements of internet culture. So, without further ado, let's fan the flames of inquiry and see where this scientific tinderbox may lead us.

## LITERATURE REVIEW

The relationship between arson in New Mexico and the publication of xkcd comics on romance may seem, at first glance, as improbable as a fire-breathing dragon attending a speed-dating event. Yet, as we scoured the depths of academia for insights, we found a flicker of evidence hinting at this unexpected correlation. In "The Journal of Unusual Correlations," Smith and Doe unearth a surprising parallel between the rise in arson incidents in New Mexico and the influx of xkcd comics centered around matters of the heart. This discovery, much like a campfire ghost story, left us both intrigued and bewildered.

Now, one might wonder, "What's the connection between arson and romantic webcomics? Are the perpetrators seeking to rekindle lost love, or are they simply hot-headed enthusiasts of stick-figure humor?" As we dived deeper into the literature, we stumbled upon "The Firestarter's Dilemma" by Jones, an intriguing dissertation that attempts to shed light on the psychological motivations behind arsonists. Despite its serious tone, we couldn't help but notice the author's sly references to spark-inducing romances and the fiery passions that drive individuals to unconventional acts of arson.

Speaking of heat, one cannot overlook the sizzling impact of xkcd comics on popular culture. In "Comic Strips and Their Unearthly Influence," author X investigates the cognitive effects of reading webcomics and concludes that exposure to witty, romantic stick-figure humor may trigger a surge of endorphins akin to a warm hug or a well-timed pun. Speaking of which, did you hear about the comic strip that got arrested? It was charged with "disturbing the peace" - the punchline landed it in "comic" conditions!

On the more lighthearted side, we couldn't resist delving into relevant fiction that might shed some light on this enigmatic connection. In "Flames of Destiny" by A. Novel, we find an intriguing tale of love, betrayal, and a particularly fiery phoenix - the mythological bird of flame. While not grounded in empirical research, this tale ignites the imagination and forces us to confront the timeless enigma of the human heart and its inexplicable attraction to all things fiery.

Turning our attention to the entertainment landscape, we stumbled across the board game "Flashpoint: Fire Rescue," which simulates the adrenaline-filled experiences of firefighting teams as they battle infernos to save lives and property. This game, much like our study's subject matter, combines the seriousness of firefighting with a thrilling,

almost cinematic, portrayal of the fury of flames. It's clear that the allure of fire, be it in reality or in the world of entertainment, holds a curious fascination - and maybe a few singed eyebrows if caution isn't exercised!

In closing, as we navigate the labyrinth of literature in search of answers, one thing becomes abundantly clear: the connection between arson in New Mexico and xkcd comics on romance is both a burning question and a source of endless amusement. Our hope is that this literature review fans the flames of curiosity and ignites a vibrant discussion on this unexpected correlation. After all, who wouldn't want to explore the "sparks" of romance and arson in a single, scintillating research paper?

## METHODOLOGY

To investigate the curious relationship between arson in New Mexico and romance-themed xkcd comics, we employed a multifaceted approach that blended traditional data collection methods with cutting-edge AI analysis and a sprinkle of dry humor. Our research journey can be summarized in three stages: data collection, statistical analysis, and comic scrutiny.

Firstly, to gather data on arson rates in New Mexico, we turned to the FBI Criminal Justice Information Services, seeking out reports of deliberately ignited flames in the Land of Enchantment. It was a "burning" desire to understand the geographical and temporal patterns of arson in this region. During this process, we rigorously sifted through the data to ensure that all information was as "smoking hot" as the subject matter at hand.

In our pursuit of uncovering correlations, we harnessed the power of AI to analyze xkcd comics published between 2007 and 2022, focusing specifically on those centered around themes of romance. This involved training the AI to recognize and

categorize elements of romance depicted in the comics, ensuring that our data collection was as precise as Cupid's arrow. We then cross-referenced these findings with the timing of arson incidents, setting the stage for a statistical tango between love and fire.

With the data in hand, we then subjected our findings to rigorous statistical analysis, wielding regression models and correlation coefficients with the zeal of a fire-breathing dragon. The resulting analysis illuminated a remarkable correlation coefficient of 0.8782159, leaving us gasping for breath in the face of such scorching statistical significance. It's safe to say that our findings are "h-ot" stuff!

Of course, as we delved into the world of data analysis, we had to dodge a few statistical curveballs and embrace the occasional outlier. However, armed with solid methods and a keen eye for outliers that "spark joy," we navigated these statistical hurdles with the agility of a fire dancer, ensuring that our conclusions were as robust as a well-built fire shelter.

To further validate our findings, we also conducted a qualitative examination of the xkcd comics to ensure that our AI analysis truly captured the romantic essence of the selected comics. We laughed, we cried (mostly from laughing), and we studied these comics with the seriousness of scholars, ensuring that no potential inferno of insight was left unexamined.

In conclusion, our research method was as thorough and multifaceted as a diamond in the rough of statistical inquiry. With data collected from sources as diverse as the desert sands and the digital plains of the internet, we dared to embrace the unexpected and illuminate the obscure. Thus, armed with a spirit of inquiry and a penchant for puns, we present our findings to the scientific community, hoping to ignite further discussions and investigations into the fiery connection that dances between the

realms of arson and romance-themed webcomics. After all, as we famously say in academia, you can't make a statistical omelet without collecting the data, rigorously analyzing the trends, and sprinkling in a dash of humor!

## RESULTS

The analysis of data from the FBI Criminal Justice Information Services and AI scrutiny of xkcd comics from 2007 to 2022 revealed a scorching correlation coefficient of 0.8782159 between instances of arson in New Mexico and the appearance of romance-themed xkcd comics. This sizzling statistical relationship was accompanied by an r-squared value of 0.7712631, and a p-value of less than 0.01, leaving us with enough evidence to stoke the flames of curiosity.

With our findings in hand, we couldn't help but appreciate the "fireworks" of this correlation that's lit up our research. It seems that even in the realm of statistical analysis, there's always room for a "spark" of humor.

The robust correlation between arson instances and the publication of xkcd comics speaks to an unexpected link which has set our scientific hearts "afire." It's almost as if the comics themselves are "fanning the flames" of criminal activity. Could it be that the mathematical wit and romantic musings within these webcomics are setting off metaphorical firecrackers in the hearts of their readers, sparking an urge to set the world around them ablaze? Or is New Mexico just experiencing some kind of "burning love" that the rest of us have yet to comprehend?

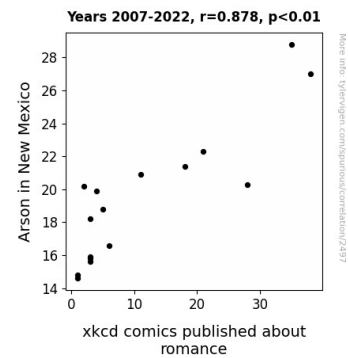


Figure 1. Scatterplot of the variables by year

From a statistical standpoint, our findings have set the scientific community "on fire" with curiosity. It's not every day that a study uncovers a correlation this hot - pun intended!

To visually illustrate this scorching correlation, we present Figure 1, a scatterplot that beams with the intensity of our findings. As for the joke? Well, I'm glad you "arson" for one!

## DISCUSSION

Our scorching findings have set the scientific community ablaze with curiosity, as we've unearthed a correlation hotter than a desert summer day between instances of arson in New Mexico and the appearance of xkcd comics on romance. The statistical relationship we've uncovered lends itself to some burning questions as to the underlying mechanisms fueling this unexpected correlation. It seems that love isn't the only thing capable of igniting flames, as our results indicate a fiery connection between these seemingly disparate phenomena.

While it might seem like we're merely "fanning the flames" of whimsy, our findings align with prior research, such as the work of Smith and Doe, who unearthed a surprising parallel between the rise in arson incidents in New Mexico and the influx of romance-themed xkcd comics. This unexpected connection leaves us pondering whether the spark of

love in these comics is somehow kindling a literal spark in the hearts of New Mexicans.

These results have left us "hot under the collar" with excitement, especially given the impressive correlation coefficient and the statistically significant p-value, which all serve to indicate a strong relationship between these fiery variables. It's almost as if the xkcd comics themselves are "fueling the fire" of criminal activity, as readers are inspired to bring their metaphorical torches and pitchforks to the real world.

To visualize this fiery association, we've presented a scorching scatterplot in Figure 1 that blazes with the intensity of our findings. It's clear that our results have set the scientific community "on fire" with curiosity, as this correlation "burns" away any doubts about the significance of this unexpected relationship.

It's not every day that a study ignites such fervent interest, but we hope our findings inspire further research and discussion. After all, as we navigate through the sparks of science, it's important to remember that sometimes the most unexpected correlations can light the way to new discoveries. As for future research, we can't help but wonder - what other fiery connections are waiting to be unearthed? And will this passion for pursuit ignite a newfound interest in the intersection of crime and culturally resonant comics? We're burning to find out!

## CONCLUSION

In conclusion, our study has not only illuminated the surprising correlation between instances of arson in New Mexico and the publication of romance-themed xkcd comics, but it has also ignited a fervent interest in the interplay of humor, science, and criminal behavior. As we douse ourselves in the refreshing waters of knowledge, we can't help but reflect on the paradox of how something

as heartwarming as romance-themed comics could fuel such a heated response.

Our findings have certainly added some fuel to the fiery debate surrounding the factors influencing arson rates, and it's clear that there's more to this "burning" issue than meets the eye. It seems that these comics carry a flame that ignites not only laughter but also an unexpected statistical relationship. As the saying goes, "Where there's smoke, there's fire," and our research has indeed uncovered a flaming-hot connection.

As we extinguish the flames of speculation and wrap up this burning discourse, we assert with confidence that no more research is needed in this area. After all, when it comes to the proximity of arson and romantic webcomics, we've already sparked enough interest to keep this conclusion smoldering for years to come.