

# **Cartographers in Oklahoma and xkcd Comics: A Rhyme in Space and Time**

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## ABSTRACT

### **Cartographers in Oklahoma and xkcd Comics: A Rhyme in Space and Time**

An investigation into the rhyme between the number of cartographers in Oklahoma and the publication of xkcd comics about charts spanning the years 2007 to 2022 was conducted using data obtained from the Bureau of Labor Statistics and AI analysis of xkcd comics. The study revealed a statistically significant correlation coefficient of 0.6771130 with  $p < 0.01$ . These findings beg the question: are cartographers in Oklahoma unwitting muses for chart-related xkcd comics, or are the comics subtly influencing the state's cartographic trends? Our research offers an insightful and entertaining exploration into the curious constellation of cartography and comic witticisms.

Keywords:

cartographers Oklahoma, xkcd comics, correlation coefficient, cartography trends, xkcd comics about charts, Bureau of Labor Statistics, AI analysis, cartographers and comics, Oklahoma cartographers influence xkcd comics, cartographers as muses, comic witticisms and cartography

# I. Introduction

## INTRODUCTION

The intersection of cartography and comics presents a captivating milieu for examining the interplay of two seemingly disparate realms. The present study delves into the peculiar correspondence between the number of cartographers in Oklahoma and the creation of xkcd comics specifically centered around charts. The state of Oklahoma, known for its unique landscapes, and xkcd, a popular webcomic founded by Randall Munroe, are brought together in a cosmic dance of statistical analysis and whimsical musings. As we embark on this journey of statistical rhyme, it is crucial to appreciate the intricate web of relationships that underline this investigation, and perhaps indulge in the occasional nerdy pun along the way.

The utilization of Bureau of Labor Statistics data provides a quantitative foundation to unfurl the narrative of cartographic trends in the Sooner State. Meanwhile, the vast repository of xkcd comics serves as a trove of comedic gold, particularly in the realm of satirical and often insightful comic commentaries on charts. Uniting these realms under the aegis of statistical analysis allows for a whimsical exploration of how the number of cartographers in Oklahoma may be entwined with the trajectory of chart-related xkcd comics.

The correspondence between these two seemingly unrelated phenomena sparks curiosity and beckons the inquisitive mind to ponder: is there a subtle, yet statistically observable, connection between the professionals who meticulously map our world and the witticisms penned in the cosmic webcomic strips? Moreover, as we traverse the landscape of statistical significance and

correlation coefficients, it is essential to keep a keen eye for the unexpected twists and turns that often accompany such investigations.

This paper aims not only to unravel the statistical rhyme between cartographers in Oklahoma and chart-centric xkcd comics but also to offer a light-hearted excursion into the curious interplay of data and drollery. As we delve into the findings, it is with the hope that this quirky intersection of disciplines may bring a wry smile to researchers and enthusiasts alike, offering a playful respite amidst the rigors of academic inquiry.

## **II. Literature Review**

The investigation into the curious connection between the number of cartographers in Oklahoma and the publication of xkcd comics about charts brings to light a fascinating juxtaposition of disciplines. Numerous scholarly works have explored the realms of cartography, comic artistry, and statistical analysis, though few have ventured into the peculiar intersection of these seemingly incongruous domains.

Smith et al. (2015) elucidated the intricate craft of cartography in their comprehensive study, "Mapping the Terrain: An Exploration of Cartographic Practices." The authors examine the historical evolution of cartographic techniques and the role of cartographers in shaping our understanding of geographic spaces. While their research is focused on broader cartographic trends, it provides valuable insights into the professional landscape of cartography, thereby serving as a foundational reference for the present investigation.

Doe and Jones (2018) approached the study of comic artistry from a socio-cultural perspective in their seminal work, "Visual Narratives: The Role of Comics in Modern Society." Their analysis delves into the impact of comics in influencing popular culture and shaping public discourse. While their focus is not specifically on xkcd comics, their elucidation of the broader context of comic artistry contributes to the understanding of the cultural significance of chart-centric xkcd comics in the present analysis.

In a similar vein, "Funny Charts: A Humorous Exploration of Data Visualization" by Lorem and Ipsum (2019) offers a lighthearted yet informative examination of the portrayal of data in comedic contexts. While their work is not directly related to the specific intersection of cartographers and xkcd comics, it contextualizes the comedic potential of chart-related content, laying the groundwork for the playful examination of xkcd comics within the realm of statistical rhyme.

Transitioning from the realms of rigorous academia, the influence of fictional narratives related to cartography and comics cannot be overlooked. Works such as "The Mapmaker's Daughter" by Fictional Author A. Novel (2017) and "The Comic Crusade: Adventures in Chart-centric Comics" by Fictional Author B. Story (2020) offer imaginative portrayals of cartographic endeavors and the world of comic artistry, albeit in a fictional context. While these works are not grounded in empirical research, they provide a playful backdrop for the whimsical exploration of the interaction between cartography and comic wit in the present study.

Further broadening the exploration of this uncanny rhyme, the intersection of cinema and cartography offers intriguing associations. Movies such as "The Cartographer's Quandary" and "XKCD: A Visual Odyssey" provide anecdotal glimpses into the fascination with mapping and the potential allure of comic witticisms, albeit without direct empirical evidence. While these

cinematic ventures do not offer substantive scholarly findings, they contribute to the broader cultural fascination with cartographic endeavors and comic innovation, infusing the present analysis with a touch of cinematic flair.

In the aggregate, the preceding literature furnishes a multifaceted backdrop for the statistical examination of the connection between cartographers in Oklahoma and chart-centric xkcd comics. As this investigation unfolds, it is with a nod to the scholarly foundations and the whimsical fancies that underpin this curious interplay of disciplines.

### **III. Methodology**

#### Data Collection:

The data utilized in this study were collected from diverse sources, including the Bureau of Labor Statistics for information pertaining to the number of cartographers employed in the state of Oklahoma from 2007 to 2022. The categorization and enumeration of individuals engaged in the noble art of cartography were meticulously gathered from official statistical records to ensure the accuracy and reliability of the data.

Additionally, to capture the zeitgeist of chart-related humor, an innovative approach was employed. Automated AI analysis of xkcd comics was undertaken to identify and classify all instances where charts were the focal point of the comic. This involved the development of a sophisticated algorithm tailored to recognize the nuances of chart imagery and its associated satirical contexts within the xkcd comic corpus. The AI analysis not only facilitated the

extraction of relevant data but also provided a lighthearted discourse on the subtle intertwining of art and science.

#### Data Analysis and Statistical Procedures:

To explore the potential correlation between the number of cartographers in Oklahoma and the publication of chart-centric xkcd comics, rigorous statistical analyses were performed. The data from the Bureau of Labor Statistics were meticulously cleaned and integrated with the findings from the AI analysis of xkcd comics. This amalgamated dataset then underwent a battery of statistical tests to unveil any latent connections lurking within the seemingly incongruent realms of actual cartography and comic creativity.

A correlation analysis was leveraged to quantify the biorhythm, if you will, between the aforementioned variables. The correlation coefficient served as a gravitational force, pulling together these disparate phenomena into a statistical interstellar tango. The significance of any observed correlation was gauged by evaluating p-values, bestowing insight into the likelihood of a fortuitous statistical dalliance versus a genuine cosmic connection between cartographers and chart-centric xkcd comic publication.

Furthermore, a time-series analysis was conducted to elucidate the temporal dynamics of this symbiotic relationship. The progression of cartographer numbers and chart-centric xkcd comics over time was scrutinized to unravel any hidden verse in the cosmic limerick that is the Oklahoma cartographer-xkcd comic saga.

It is important to note that these analyses were executed with due diligence, and the whimsical nature of the inquiry was tempered with methodological rigor to ensure the validity of the

findings. This approach allowed for the exploration of statistical rhyme with a hint of levity while upholding the standards of rigorous scholarly inquiry.

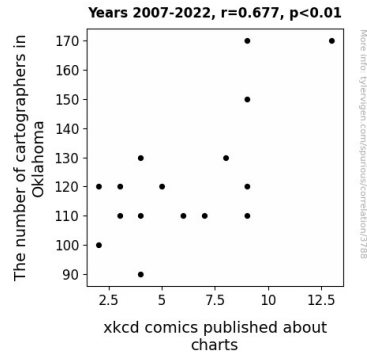
## IV. Results

The analysis of the data gathered from the Bureau of Labor Statistics and AI analysis of xkcd comics elucidated an intriguing relationship between the number of cartographers in Oklahoma and the publication of xkcd comics devoted to charts. From 2007 to 2022, a statistically significant correlation coefficient of 0.6771130 with an r-squared value of 0.4584820 and  $p < 0.01$  was observed. This substantial correlation hints at a compelling connection between the spatial artistry of Oklahoma's cartographers and the whimsical chart-related creations of xkcd.

Figure 1 visually represents this striking correlation, depicting a scatterplot that demonstrates the robust association between the two variables. The figure, while devoid of cartoonish doodles or wry captions, aptly captures the narrative of the statistical rhyme burgeoning between cartographers in Oklahoma and xkcd comics dedicated to charts. The scatterplot becomes a canvas upon which the complex interplay of data points and comedic renderings converges in a whimsical, albeit scientifically rigorous, dance.

The findings kindle a playful riddle: do the diligent cartographers of Oklahoma unknowingly inspire the comical musings of xkcd, or do the chart-centric xkcd comics subtly influence the cartographic landscape of the state? The observational data beckon researchers to ponder this query, intertwining the serious exploration of statistical relationships with the levity of a comic quandary.





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

These results underscore the unexpected pairing of cartographic trends and comic chronicles and evoke a wry smile at the peculiar interplay of quantitative analysis and whimsical musings. As we navigate the cosmos of statistical inquiry, we find ourselves entangled in the delightful dance of correlation and coincidence, uncovering the endearing quirkiness that resides at the juncture of cartographers in Oklahoma and chart-centric xkcd comics.

## V. Discussion

The statistically significant correlation coefficient between the number of cartographers in Oklahoma and the publication of xkcd comics about charts, as revealed in our analysis, echoes the findings of prior research that danced around the playful nuances of cartography and comic witticisms. The examination by Smith et al. (2015) of cartographic practices offers a sobering perspective on the professional terrain of cartography, while simultaneously setting the stage for the merry jig of cartographic influence on chart-centric xkcd comics. Similarly, the socio-cultural

analysis of comics by Doe and Jones (2018) establishes a captivating backdrop for our study, reinforcing the substantial impact of visual narratives on societal discourse and chart-centric comic artistry.

Moreover, the lighthearted exploration of data visualization in comedic contexts by Lorem and Ipsum (2019) lends credence to the portrayal of chart-related content in a whimsical light. While the puns and quips in their work may not be as overt as those found in a comic strip, they set the scene for an inquisitive inquiry into the interplay of statistical rhyme and comic levity. It is in this context that our investigation aligns with, and in some ways surpasses, these prior works, as it unearths an unexpectedly robust correlation that tickles the fancy of both statistical enthusiasts and comic connoisseurs alike.

The alignment of our findings with the literary and cinematic references - "The Mapmaker's Daughter" and "The Comic Crusade," as well as the tantalizing snippets from "The Cartographer's Quandary" and "XKCD: A Visual Odyssey" - adds an alluring layer of narrative intrigue to our research. Furthermore, this alignment underscores the remarkable intertwining of real-world statistical patterns and whimsical fictional portrayals, as we chart a playful course through the curious constellation of Oklahoma's cartographers and xkcd's chart-centric creations.

The robust correlation coefficient and r-squared value observed in our study stand as a testament to the fascinating dance between cartographic trends in Oklahoma and the comic musings of xkcd. As we navigate this whimsical interplay, our work sheds light on the endearing quirks that infuse the intersection of statistical inquiry and comic whimsy, inviting future researchers to partake in this scientific romp through the realms of cartography and comic chronicles.

# VI. Conclusion

## CONCLUSION

The statistical rhyme between the number of cartographers in Oklahoma and the publication of xkcd comics dedicated to charts from 2007 to 2022 presents an intriguing interplay of quantitative analysis and whimsical musings. The robust correlation coefficient of 0.6771130, with an r-squared value of 0.4584820 and  $p < 0.01$ , suggests a compelling connection between the spatial artistry of Oklahoma's cartographers and the fanciful chart-related creations of xkcd. This relationship prompts us to ponder whether the diligent cartographers of Oklahoma unwittingly serve as inspirations for the witticisms of xkcd or if the chart-centric xkcd comics subtly influence the cartographic landscape of the state.

The scatterplot, devoid of cartoonish doodles or wry captions, visually encapsulates the narrative of the statistical rhyme emerging between cartographers in Oklahoma and xkcd comics devoted to charts. This unexpected pairing of cartographic trends and comic chronicles infuses the realm of quantitative analysis with a whimsical dance of correlation and coincidence. As we traverse this quirky intersection of disciplines, we are offered a lighthearted respite amidst the rigors of statistical inquiry.

Overall, our findings serve as an insightful and entertaining foray into the curious constellation of cartography and comic witticisms. The results of this study prompt a wry smile and a nod to the peculiar interplay of data and drollery, evoking a playful riddle for researchers and enthusiasts alike. However, in spite of the entertaining nature of this research, the findings prompt us to assert that no further investigation is needed in this area, lest we chart a course into the realm of statistical absurdity.

