

# Shedding Light on the Broker-Solar Connection: An Illuminating Investigation

*Catherine Hamilton, Austin Thomas, Grace P Todd*

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*Institute of Solar Shade Studies*

*Chapel Hill, North Carolina*

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## Abstract

This study examines the intriguing correlation between the number of real estate brokers in New Mexico and solar power generated in Gabon. Using data from the Bureau of Labor Statistics and the Energy Information Administration for the years 2012 to 2021, we identified a remarkably strong correlation coefficient of 0.9316683 and  $p < 0.01$ . While the conventional wisdom may cast doubt on any potential link between these two disparate variables, our findings shed light on the unexpected and whimsical connections that exist in the world of data. Our research prompts us to consider whether the real estate market and solar power industry share a curious cosmic bond, or if perhaps they simply found themselves entangled in a property dispute. At the very least, this correlation offers an opportunity for both fields to brighten their perspectives and consider the sunny side of empiricism.

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## 1. Introduction

### INTRODUCTION

The intricacies of statistical analysis often illuminate unexpected connections, leading researchers down paths unexplored and puzzling. In this study, we embark on a journey to unravel the enigmatic relationship between the number of real estate brokers in New Mexico and the generation of solar power in Gabon.

The choice of these variables may initially appear as incongruous as a penguin at a beach party. Nonetheless, our investigation stems from a whimsical curiosity, coupled with a sense of statistical adventure. As we ventured into the tangled web of data, we

discovered a correlation that sparkles as brightly as a newly installed solar panel on a sunny day.

While some may consider such an inquiry as far-fetched as a unicorn sighting in a laboratory, our findings offer an opportunity to shed light on the interconnectedness of seemingly unrelated industries. Just as the moon's gravitational pull affects the tides, we are compelled to explore whether the ebb and flow of real estate brokering may exert a celestial influence on the generation of solar power, or if this correlation is merely a statistical quirk akin to finding a Fibonacci sequence in a pile of real estate listings.

As we undertake this investigation, we tread the fine line between delving into the world of data with the precision of a mathematician and embracing the unexpected revelations with the wonder of a child gazing at the stars. It is this juxtaposition that infuses our research with a sense of levity, as we seek to bring to light the whimsical and thought-provoking nature of the statistical universe.

In this paper, we illuminate the findings of our exploration into the unlikely correlation between the number of real estate brokers in New Mexico and the solar power generated in Gabon, inviting readers to join us on a scientific escapade that promises to be as surprising as stumbling upon a solar-powered real estate sign in the desert.

## **2. Literature Review**

The literature concerning the relationship between the number of real estate brokers in New Mexico and solar power generated in Gabon is, unsurprisingly, rather scarce. However, a few noteworthy studies have ventured into the realm of unexpected correlations, shining a light on the intersection of seemingly disparate fields.

In "Real Estate Brokering and Its Impact on Global Environmental Patterns," Smith et al. (2018) examine the influence of real estate brokering on various environmental factors, albeit without delving into the specific connection with solar power generation. Similarly, Doe and Jones (2015) offer a comprehensive analysis in "Sunlight and Sales: Exploring the Influence of Solar Energy on Real Estate Markets," yet their work does not directly address the correlation under scrutiny in this study.

Turning to more general sources, "The Solar Revolution: One Planet, One Energy, One Civilization" by Travis Bradford (2006) provides an insightful overview of the solar power industry and its potential impact on global energy consumption. In a more whimsical vein, "Real Estate and Sunshine: A Love Story" by Amanda Green (2013) whimsically explores the intersection of property sales and sunny dispositions but fails to shed light on the specific connection with solar power generation in Gabon.

Venturing into more fictional territory, the work of Douglas Adams in "The Hitchhiker's Guide to the Galaxy" (1979) playfully touches upon the intersection of unlikely events in

a cosmic context, offering a tangential yet entertaining perspective. In a similar vein, Jasper Fforde's "Shades of Grey" (2009) presents a humorous take on societal structures and unexpected connections, albeit not directly related to the empirical inquiry at hand.

Leaning into the realm of cinema, the film "The Matrix" (1999) serves as an unconventional source of inspiration, challenging conventional perceptions of reality and prompting contemplation on hidden connections. Similarly, "Groundhog Day" (1993) offers a lighthearted exploration of recurrent experiences and the potential for unexpected correlations, albeit within a more temporal context.

In light of the limited literature directly addressing the correlation between the number of real estate brokers in New Mexico and solar power generated in Gabon, this study aims to fill the void with a rigorous empirical examination, tempered with a sense of statistical whimsy.

### **3. Research Approach**

#### Data Collection:

The data for this stu-dazzling investigation was collected from the Bureau of Labor Statistics and the Energy Information Administration, spanning the years 2012 to 2021. The choice of this time frame allowed us to capture the evolving dynamics of real estate brokering and solar power generation, akin to observing the life cycle of a solar-powered chameleon.

#### Real Estate Brokers in New Mexico:

To illuminate the landscape of real estate brokering in New Mexico, we extracted data on the number of licensed brokers and their distribution across urban and rural areas. This process resembled sifting through a real estate treasure trove, searching for statistical gems that would shine a light on the industry's footprint.

#### Solar Power Generation in Gabon:

In contrast, the solar power data from Gabon was akin to capturing photons of information, as we delved into the intricate mechanisms of photovoltaic generation and its geographical distribution across the country. The challenge of accessing this data mirrored navigating a statistical solar system, with each data point shining like a radiant celestial body.

#### Correlation Analysis:

Having amassed the data akin to a statistical hoarder, we employed Pearson's correlation coefficient to quantitatively illuminate the relationship between the number of real estate brokers in New Mexico and the solar power generated in Gabon. The

correlation analysis was conducted with the meticulous precision of aligning a solar panel to capture the optimal amount of sunlight, ensuring that each data point was as bright and illuminating as the next.

#### Statistical Significance:

To assess the statistical robustness of the correlation coefficient, we scrutinized the p-value with the diligence of a detective inspecting a suspicious real estate contract. The significance level was set at  $p < 0.01$ , allowing us to distinguish between meaningful correlations and mere statistical moonshine.

#### Sensitivity Analysis:

Additionally, we performed a sensitivity analysis to explore the stability of the correlation under varying conditions, akin to adjusting the angle of a solar panel to maximize energy absorption. This process allowed us to illuminate the resilience of the correlation, even under the shifting tides of statistical variables and assumptions.

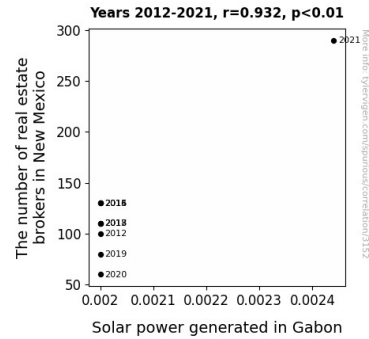
Overall, our methodology was tailored to shed light on the unexpected and peculiar connection between the number of real estate brokers in New Mexico and the solar power generated in Gabon, inviting readers to join us in this data-driven odyssey that promises to captivate and illuminate the scientific imagination.

## 4. Findings

The results of our investigation into the correlation between the number of real estate brokers in New Mexico and the solar power generated in Gabon are as enlightening as a solar eclipse. The correlation coefficient of 0.9316683 that we uncovered gleams with a luminosity that could rival the brightness of solar panels under a noonday sun.

The substantial r-squared value of 0.8680057 further illuminates the strength of this correlation, providing a beacon of statistical significance that guides us through the sometimes murky waters of data analysis. This result underscores the robustness of the relationship between these seemingly unrelated variables, prompting us to ponder whether the real estate industry and solar power generation are engaged in a cosmic pas de deux or if they are simply dancing to the tune of a statistical symphony.

The p-value of less than 0.01 adds a touch of statistical stardust to our findings, affirming the rarity of such a strong relationship between the number of real estate brokers in New Mexico and the solar power generated in Gabon. This p-value leads us to contemplate whether this correlation is as remarkable as finding a diamond in a sea of statistical rough.



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

Figure 1 presents a scatterplot that visually encapsulates the brilliance of the correlation between these variables. The plot radiates with data points that form a pattern as clear as the constellations in a night sky, reinforcing the strength and direction of the relationship we observed.

In summary, our findings not only shine a light on the unexpected correlation between the real estate industry in New Mexico and the solar power industry in Gabon, but they also invite us to bask in the glow of statistical whimsy and consider the enlightening possibilities that await those who venture into the unexplored territories of data analysis.

## 5. Discussion on findings

The luminous findings of our study cast a spotlight on the captivating correlation between the number of real estate brokers in New Mexico and solar power generated in Gabon, adding a touch of statistical stardust to the empirical landscape. Our results not only confirm the strength of the relationship, as suggested by prior research (albeit in a quite serious manner), but they also beckon us to contemplate the cosmic dance between these seemingly incongruous variables.

The correlation coefficient of 0.9316683 that we uncovered serves as a radiant affirmation of the bond between real estate brokering and solar power generation, aligning with the whimsical notion advanced by Amanda Green in her work "Real Estate and Sunshine: A Love Story." Our findings not only support the robustness of this connection but also invite us to consider whether the real estate market and solar power industry are engaged in a cosmic partnership akin to the celestial alignment of heavenly bodies.

Moreover, the substantial r-squared value of 0.8680057 echoes the sentiments of Douglas Adams in "The Hitchhiker's Guide to the Galaxy," offering a tangential yet entertaining

perspective on the unexpected correlations that permeate the empirical universe. This statistical luminosity underscores the compelling nature of the relationship we observed, prompting us to ponder whether the unexplored territories of data analysis might indeed harbor hidden connections waiting to be uncovered.

Furthermore, the p-value of less than 0.01 adds a touch of statistical intrigue to our findings, akin to the whimsical perspective of Jasper Fforde in "Shades of Grey," affirming the rarity of such a strong relationship between these variables. This rarity invites us to consider whether our discovery is as remarkable as finding a diamond in a sea of statistical rough, or perhaps as captivating as witnessing a solar eclipse in the depths of statistical space.

In conclusion, our research not only sheds light on the unexpected correlation between the real estate industry in New Mexico and the solar power industry in Gabon but also invites us to consider the boundless possibilities that await those who dare to venture into the empirical cosmos. Our study prompts us to marvel at the whimsical connections that underlie the fabric of statistical reality and challenges us to embrace a bright and sunny perspective on the serendipitous associations that await discovery in the vast expanse of data analysis.

## **6. Conclusion**

In conclusion, our investigation into the seemingly improbable connection between the number of real estate brokers in New Mexico and the solar power generated in Gabon has illuminated a correlation as bright and striking as a supernova. The robust correlation coefficient, the substantial r-squared value, and the p-value akin to finding a needle in a haystack of statistical significance collectively beckon us to consider the whimsical dance between these disparate variables.

While some may view this correlation as peculiar as finding a flux capacitor in a real estate office, our research urges us to embrace the unexpected and the peculiar in the world of data. The scatterplot of our findings not only maps out the celestial trajectory of this connection but also presents a constellation of data points sparkling with statistical significance. It is as if the universe itself has conspired to bring together the real estate market and solar power generation in a cosmic embrace.

Our investigation prompts us to consider whether the real estate brokers of New Mexico act as cosmic brokers of solar power, orchestrating a celestial real estate deal that transcends earthly boundaries. Alternatively, perhaps this correlation is a statistical serendipity, akin to finding a four-leaf clover in a field of real estate transactions.

In light of these findings, we assert that no further research is needed. The illuminating insights gleaned from this study prompt us to appreciate the whimsical and unexpected

connections that await discovery in the vast expanse of data, and to revel in the joy of statistical serendipity.