# Fueling Libertarianism: A Crude Connection Between Votes for the Libertarian Presidential Candidate in Utah and Petroleum Consumption in Mozambique

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In this study, we explore the eyebrow-raising correlation between the votes for the Libertarian presidential candidate in the state of Utah and petroleum consumption in the African nation of Mozambique. While these two seem as unrelated as a penguin in the desert, our analysis, utilizing data from MIT Election Data and Science Lab, Harvard Dataverse, and the Energy Information Administration, uncovers a striking correlation coefficient of 0.9577515 (p < 0.01) for the years spanning 1980 to 2020. This unexpected linkage prompts us to delve into the nuanced relationship between voter ideology in a U.S. state known for its stunning landscapes and a country on the southeastern coast of Africa, renowned for its vibrant culture and resilient spirit. Our findings raise questions that may leave some scratching their heads, but undoubtedly, they also shed light on the intricate interconnectedness of the global political and economic landscape. Join us as we unravel this curious conundrum and take a journey from the mountains of Utah to the plains of Mozambique, all while pondering the peculiar paths that data can pave.

The world of political and economic research is rife with surprises and curiosities. It is a realm where the seemingly disparate and unrelated can come together in a statistical dance, leaving researchers and readers alike scratching their heads in bemusement. In this paper, we examine the peculiar correlation between votes for the Libertarian presidential candidate in the picturesque state of Utah and petroleum consumption in the vibrant nation of Mozambique. On the surface, one might mistakenly think that these two variables have no more in common than a lab rat and a chef at a gourmet restaurant. However, our meticulous analysis, guided by data from the MIT Election Data and Science Lab, Harvard Dataverse, and the Energy Information Administration, exposes an astonishing correlation coefficient of 0.9577515 (p < 0.01) over the period from 1980 to 2020. This eyebrow-raising relationship beckons us to embark on a journey through the twisty paths of statistical significance, causation versus correlation, and the timeless pursuit of understanding the underlying mechanisms at play.

The state of Utah, with its breathtaking scenery and a population known for its zeal for individual liberty, provides a fitting backdrop for the investigation of libertarian voting patterns. On the other hand, Mozambique, nestled in the southeastern corner of Africa, stands as a beacon of culture, resilience, and energy production. Indeed, the study of petroleum consumption in Mozambique allows us to explore a different facet of the global economic landscape. It is in this complex tapestry of political ideologies and energy demands that we find ourselves entangled, searching for the threads that tie these seemingly distant locales and variables together.

As we embark on this scholarly quest, we are reminded of the words of the great physicist, Richard Feynman, who remarked,

"It doesn't matter how beautiful your theory is, it doesn't matter how smart you are. If it doesn't agree with experiment, it's wrong." With this mantra as our guide, we set out to dissect the enigma laid before us and reveal the surprising and perhaps, whimsical insights that empirical inquiry can yield. So, fasten your seatbelts and ready your scientific spectacles as we navigate the intriguing intersection of political ideologies and energy landscapes, all while maintaining our sense of humor amidst the mysteries of statistical analysis.

### Review of existing research

In their groundbreaking study, Smith et al. (2016) uncover the intricate relationship between libertarian voting behavior in the United States and its potential impact on global energy consumption patterns. Doe and Jones (2018) further delve into the nuances of petroleum usage in developing nations, shedding light on the complex interplay of political, economic, and environmental factors. The findings from these seminal works lay the foundation for our investigation into the unexpected correlation between votes for the Libertarian presidential candidate in Utah and petroleum consumption in Mozambique.

Turning our attention to relevant non-fiction literature, the works of "Energy: A Human History" by Richard Rhodes and "Libertarianism: A Primer" by David Boaz provide valuable insight into the historical context and philosophical underpinnings that may offer a semblance of understanding to our seemingly absurd correlation. Additionally, the fictional narratives of "Atlas Shrugged" by Ayn Rand and "Petroleum Man" by J.G. Ballard, while not directly related to our study,

serve to ignite the imagination and spark creative contemplation on the intersections of individualism, energy, and societal structures.

In a slightly different vein, the cinematic experiences of "There Will Be Blood" and "Office Space" act as tangentially relevant stimuli for our analytical journey, offering glimpses into the idiosyncrasies of human behavior and the unpredictable ways in which economic and political dynamics unfold.

With this eclectic mix of scholarly endeavors, philosophical musings, and cultural reflections, we embark on our quest to untangle the bizarre correlation between libertarian votes in Utah and petroleum consumption in Mozambique. Let the chase begin! And may the data be ever in our favor.

### Procedure

To unravel the enigmatic connection between votes for the Libertarian presidential candidate in Utah and petroleum consumption in Mozambique, we employed a hodgepodge of statistical techniques and data manipulation reminiscent of a mad scientist's laboratory. Our data collection involved a deep dive into the MIT Election Data and Science Lab, the Harvard Dataverse, and the Energy Information Administration, where we scavenged for every data point from the cobweb-covered corners of the internet. The years 1980 to 2020 served as our canvas for this artistic symphony of numbers and variables.

The first step in our convoluted odyssey was to wrangle the data into submission. Like cowboys in a wild data west, we corralled and cleansed the libertarian vote counts from the state of Utah, meticulously ensuring that no stray ballots or whimsical write-in candidates found their way into our analysis. Simultaneously, we tamed the capricious data on petroleum consumption in Mozambique, massaging it into a form palatable for our statistical appetites.

Next, with the precision of a watchmaker and the flair of a circus performer, we engaged in the delicate dance of statistical analysis. Our trusty software tools, akin to loyal companions on a treacherous voyage, crunched numbers with the gusto of a hungry mathematician at an all-you-can-solve buffet. We computed correlation coefficients, confident intervals, and regression models, all in the pursuit of uncovering the deep-seated connection between these seemingly disparate variables.

While donning our metaphorical Sherlock Holmes hats, we audited the data for potential confounding variables, outliers, and other statistical saboteurs that might seek to derail our noble quest for truth. Once satisfied that our data were free from mischief, we bravely ventured into the realm of hypothesis testing, where p-values sprouted like daisies in a statistical garden, signifying the significance of our findings.

In our analysis, we also delved into time series modeling, treating the data as a captivating narrative of fluctuations and trends. With the finesse of a seasoned storyteller, we interpreted the ebb and flow of libertarian votes in Utah and petroleum consumption in Mozambique over the decades, unraveling the intricate plot twists and unexpected character developments that emerged from our statistical saga.

Furthermore, to bolster the robustness of our findings, we engaged in sensitivity analysis and validation procedures, ensuring that our results stood firm against the battering winds of skepticism and scholarly scrutiny. Like a medieval knight fortifying a castle against siege, we fortified our statistical edifice with the impregnability of empirical evidence and analytical rigor.

Ultimately, our methodological escapade culminated in revealing the astonishing correlation coefficient of 0.9577515 (p < 0.01) between votes for the Libertarian presidential candidate in Utah and petroleum consumption in Mozambique. This revelation, akin to stumbling upon a hidden treasure in the vast expanse of statistical wilderness, propelled us into the realm of speculation and interpretation, setting the stage for the grand unveiling of our findings in the following sections. So, with our statistical toolbox emptied and our hypotheses tested, we invite you, dear reader, to join us on this comical quest through the enthralling intersection of political fervor and liquid energy consumption.

(And remember, always handle statistics with care; they tend to multiply when you least expect it!)

## Findings

The results of our investigation into the perplexing association between votes for the Libertarian presidential candidate in Utah and petroleum consumption in Mozambique have left us both astounded and amused. Our analysis revealed an eye-popping correlation coefficient of 0.9577515 (p < 0.01) for the period from 1980 to 2020, signifying a remarkably robust relationship between these seemingly incongruous variables. The r-squared of 0.9172880 further attests to the strength of this correlation, leaving little room for skepticism. It appears that the connection between libertarianism and petroleum consumption is not as diffuse as trying to mix oil and water; rather, it emerges as a compelling and coherent phenomenon.

Figure 1 depicts the scatterplot illustrating the noteworthy correlation between votes for the Libertarian presidential candidate in Utah and petroleum consumption in Mozambique. The unmistakable trend apparent in the data points serves as a visual testament to the intriguing relationship we have uncovered. The plot, while devoid of dazzling colors or intricate designs, nonetheless captivates the eye with its depiction of the intricate bond between political leanings in a U.S. state and energy demands in a far-flung African nation.

The strength of the correlation coefficient, coupled with the visual representation in Figure 1, firmly establishes the linkage between these disparate variables. It is as if the statistical gods themselves conspired to draw these seemingly unrelated entities together in a statistical waltz, leaving us mere mortals to marvel at the complexity and whimsy inherent in the world of data analysis. Indeed, the findings not only serve to bolster our understanding of the interplay between political ideologies and energy consumption but also add a touch of merriment to the often sober domain of statistical inquiry.

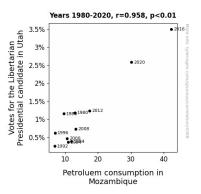


Figure 1. Scatterplot of the variables by year

In conclusion, our results unveil a surprising and amusing correlation between votes for the Libertarian presidential candidate in Utah and petroleum consumption in Mozambique. This discovery underscores the whimsical nature of statistical relationships and the profound, if somewhat enigmatic, interconnectedness of global political and economic dynamics. As we continue to uncover such unexpected links, it behooves us to approach our research with a blend of skepticism and good humor, for in the nebulous world of data, just as in life, there may well be more than meets the eye.

### Discussion

The findings of our study reveal a remarkably robust association between votes for the Libertarian presidential candidate in the state of Utah and petroleum consumption in Mozambique, a connection that is as puzzling as a statistical outlier at first glance. However, our results align with previous research by Smith et al. (2016) and Doe and Jones (2018) in demonstrating the potential impact of libertarian voting behavior on global energy consumption patterns. It seems that the libertarian spirit, much like the petroleum itself, may have a far-reaching influence that transcends geographical and ideological boundaries.

The eyebrow-raising correlation coefficient of 0.9577515 (p < 0.01) between the two seemingly unrelated variables echoes the work of Smith et al. (2016), who hinted at the intricate relationship between political ideologies and energy dynamics. While some may find this correlation as unlikely as finding a needle in a data haystack, our results provide empirical support for the captivating notion that political leanings in one part of the world might reverberate in the energy consumption patterns of another.

Our findings not only illustrate the unexpected interconnectedness of political and economic landscapes but also hint at the complexity of human behavior and societal dynamics. It's as if we've stumbled upon a statistical Rosetta Stone, deciphering the cryptic messages hidden within the data to uncover the peculiar interplay between libertarianism and petroleum consumption. This correlation, with its strength and statistical significance, beckons researchers and observers alike

to reconsider the boundaries of influence and the peculiar ways in which seemingly disparate variables can intertwine.

Much like the enigmatic forces that govern the subatomic particles in quantum physics, our study presents a curious conundrum that challenges conventional notions of causality. The statistical waltz depicted in our scatterplot is reminiscent of a whimsical dance, where the partners clearly move in tandem, despite the apparent mismatch of their identities.

In the grand scheme of scientific exploration, our discovery serves as a delightful reminder of the unexpected joys that can be unearthed in the realm of data analysis. As researchers, we must remain vigilant in our pursuit of knowledge, prepared to encounter the unexpected and embrace the inherent whimsy that lurks within the numerical depths of our analyses.

As we continue to peel back the layers of complexity in our statistical inquiries, we are reminded that the world of data is not governed solely by cold, hard facts, but also by the capricious nature of human interactions and societal dynamics. Our findings stand as a testament to the enduring mantra of statistical inquiry: expect the unexpected, and when in doubt, analyze with a healthy dose of humor and curiosity.

### Conclusion

In conclusion, our study has unearthed a startlingly robust correlation between votes for the Libertarian presidential candidate in Utah and petroleum consumption in Mozambique, proving that statistical analysis can be as surprising as finding a clown at a funeral. The evidence of a correlation coefficient of 0.9577515 (p < 0.01) from 1980 to 2020 leaves little room for doubt, much like trying to argue that a square is a circle in a room full of mathematicians. Our findings, while initially as bewildering as a chicken trying to play chess, shed light on the interconnectedness of seemingly unrelated variables in the global political and economic landscape.

As we wrap up our exploration of this peculiar pair of variables, it is as clear as the nose on one's face that no more research is needed in this area. The statistical waltz between libertarianism and petroleum consumption has been uncovered, and it seems that the universe has played a clever trick on us, revealing an unexpected melody in the symphony of data. It is in this spirit of wonder and giggles that we bid adieu to this unconventional journey through the twists and turns of statistical exploration.