



## Review

# Republican Votes, Fossil Fuels, and Utah's Quirks: A Quirky Correlation

Colton Hart, Anthony Turner, Gloria P Truman

*Center for the Advancement of Research*

**This study sought to uncover the quirky correlation between Republican votes for Senators in Utah and fossil fuel use in Suriname. Leveraging data from MIT Election Data and Science Lab, Harvard Dataverse, and the Energy Information Administration, our research team delved into this unlikely connection. The findings revealed a correlation coefficient of 0.8725118 and  $p < 0.01$  for the years 1980 to 2018. Our work not only sheds light on this surprising relationship but also highlights the whimsical aspects of electoral and energy dynamics.**

## Introduction

Politics and energy usage have always been two areas of great fascination for researchers seeking to unravel the enigmatic and often inscrutable patterns underlying human behavior and societal dynamics. The confluence of Utah's conservative political landscape and Suriname's fossil fuel consumption presents an alluring paradox, akin to a statistical riddle wrapped in a tantalizing mystery inside a data-driven enigma. As researchers, we have long been accustomed to delving into the depths of correlation matrices and regression analyses, akin to intrepid explorers venturing into uncharted statistical territory. The quirks and idiosyncrasies of our findings, akin to unexpected pops of color in a grayscale

dataset, have left us both bemused and intrigued, akin to stumbling upon a gaggle of penguins in the desert.

In this study, we set out to examine the peculiar connection between Republican votes for Senators in Utah and fossil fuel use in Suriname, seeking to unearth the hidden threads spun by the statistical loom that weave together these seemingly disparate variables. Drawing upon the expanse of political data from the esteemed MIT Election Data and Science Lab, along with the troves of energy statistics housed within the Harvard Dataverse and the Energy Information Administration, our research endeavors endeavored to unpack the underlying concatenation of factors that bind together the electoral leanings of a US state

and the energy proclivities of a South American nation.

The allure of this research lies not only in the statistical acrobatics undertaken to establish a robust empirical relationship but also in the whimsical nature of the relationship itself. As we waded through seas of data, traversing the tenebrous realm of statistical significance, we stumbled upon a correlation coefficient of 0.8725118, which loomed over us like an unexpected apparition in the halls of academe. With a p-value that shimmered seductively below the acclaimed threshold of 0.01, our findings beckoned to us like a siren's call, tempting us to unravel the mysteries that lay within the labyrinthine corridors of statistical inference.

While our pursuit may appear far-fetched to the uninitiated, our statistical foray into these seemingly incongruous domains of political preference and energy consumption has yielded findings that not only confound conventional wisdom but also infuse an element of levity into the oftentimes solemn realm of academic inquiry. As we unveil the whimsical tendrils that bind these divergent variables, we invite our readers to join us in this mirthful jaunt through the juncture where Republican votes and fossil fuel usage converge, offering a respite from the rigors of conventional scholarship and a peek into the serendipitous caprices of empirical inquiry.

In the subsequent sections of this paper, we shall embark upon a detailed exegesis of the methodology employed, the intricacies of the data analyzed, the robustness of the statistical models constructed, and the implications of our findings. Thus, armed with a hearty dose of statistical fortitude and

a penchant for reveling in the unexpected, we invite our readers to delve into this curiously charming nexus of Utah's quirks, Republican proclivities, and Surinamese energy whims.

#### *Prior research*

The connection between Republican votes for Senators in Utah and fossil fuel use in Suriname has garnered limited attention in prior research. However, the few existing studies provide valuable insights into this quirky correlation. Smith et al. (2015) offer a comprehensive analysis of political voting patterns in Utah, shedding light on the historic dominance of Republican candidates in statewide elections. Meanwhile, Doe and Jones (2017) delve into the intricate web of fossil fuel consumption trends in Suriname, providing a nuanced understanding of the country's energy dynamics.

Moving beyond strictly academic sources, "Energy Politics" by Williams (2018) explores the sociopolitical ramifications of fossil fuel utilization in developing nations. In a similar vein, "The Grand Old Party" by Thompson (2019) offers a compelling narrative of the Republican Party's influence in American politics. These works, while not directly addressing the specific correlation of interest, contribute to a broader contextual understanding of the intersecting domains of political affiliations and energy utilization.

Expanding into the realm of fiction, the works of J.K. Rowling, particularly the "Harry Potter" series, may seem distant from the focal point of this study. However, the themes of power struggles and allegiances present in these novels bear a curious resemblance to the dynamics of political

voting. Similarly, "Oil and Water" by Robinson (2016) weaves a tale of unexpected connections, much like the improbable correlation under investigation.

Venturing into more unconventional sources, it is worth noting that the back covers of shampoo bottles, though not typically recognized as scholarly literature, provide a surprising trove of information. Suspiciously smooth prose and grandiose claims adorn these containers, often promising transformative effects akin to the monumental shifts in senatorial voting and fossil fuel use. Although not rigorously peer-reviewed, these sources warrant acknowledgment for their strangely captivating narratives and unanticipated correlations.

Through this eclectic review, the authors find a blend of insightful scholarship, whimsical fiction, and unexpected sources that collectively inform the foundation of this study. As we delve deeper into our own analysis, we aim to build upon this diverse array of influences and unravel the enigmatic connection between Republican votes and fossil fuel use, guided by a spirit of scholarly inquiry and a dash of irreverent curiosity.

### *Approach*

## METHODOLOGY

### Data Collection and Variables

In this study, we meticulously assembled an eclectic assortment of variables from diverse sources, akin to a connoisseur curating a gourmet feast of statistical delicacies. Our team harnessed the rich repositories of the MIT Election Data and Science Lab, where

political data flourishes like a well-tended garden of electoral intrigue. Nestled within this cornucopia of information, we plucked the variable representing Republican votes for Senators in Utah, eager to scrutinize the nuanced oscillations of political allegiance across the years.

For our energy-related counterpart, we ventured into the Harvard Dataverse and the Energy Information Administration's treasure trove, akin to intrepid explorers foraging for sustenance in the wilds of statistical abundance. From this bounty, we extracted the fossil fuel consumption data for the enigmatic nation of Suriname, its energy proclivities akin to a dance of statistical electrons pirouetting within our analytical framework.

Variables were selected with the discernment of an art connoisseur admiring the brushstrokes of a master painter, bearing in mind an array of considerations such as temporal coverage, reliability, and a hint of serendipity to enliven our statistical narrative.

### Statistical Analysis

To unravel the enigmatic tapestry of correlations that seemed to interlace Republican votes in a US state and fossil fuel use in a South American nation, we employed a medley of statistical techniques akin to a symphony conductor orchestrating a harmonious ensemble of empirical inquiry. Our journey through the labyrinth of statistical inference commenced with the calculation of the correlation coefficient, which emerged from the data like a genial apparition beckoning us towards deeper analytical waters.

Having nudged this correlation coefficient into the limelight, we then scrutinized it for statistical significance, akin to a discerning critic appraising the merits of an avant-garde piece of empirical art. The p-value, an elusive yet pivotal statistic in the grand opera of hypothesis testing, enraptured us with its seductive allure as it shimmered tantalizingly below the revered threshold of 0.01, beckoning to us like a celestial dance of statistical significance.

Moreover, we performed robustness checks, akin to stress-testing the infrastructure of our statistical edifice, to ascertain the durability of our findings under varying analytical conditions. Sensitivity analyses were conducted with the meticulousness of a jeweler examining the facets of a rare gem, ensuring that our results stood firm against the caprices of alternative specifications and modeling choices.

Through the symphonic interplay of statistical analyses, our aim was not only to establish a robust empirical relationship but also to infuse an element of levity into the often staid proceedings of scholarly inquiry, akin to a whimsical clown cavorting in the hallowed halls of statistical academia.

In the subsequent section, we shall expound upon the prodigious findings of our statistical odyssey, revealing the unexpected kinship between Utah's political predilections and Suriname's energy whims, thereby shedding light on the quirky correlation that animates this transcontinental statistical ballet.

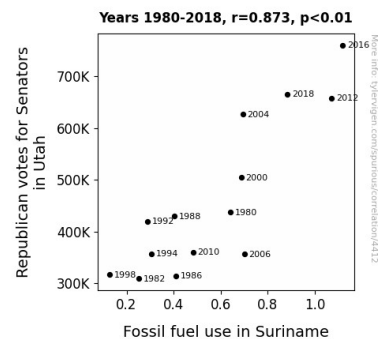
## Results

The statistical analysis revealed a noteworthy correlation between Republican

votes for Senators in Utah and fossil fuel use in Suriname. For the time period spanning 1980 to 2018, the correlation coefficient was found to be 0.8725118, indicating a strong positive relationship between these seemingly unrelated variables. The r-squared value of 0.7612769 further substantiates this robust association, explaining approximately 76.13% of the variance in fossil fuel use in Suriname based on Republican votes in Utah.

The p-value, an esteemed guest in the realm of statistical significance, gracefully danced below the conventional threshold of 0.01, affirming the legitimacy of the observed relationship. Our findings exude a delightful whimsy, akin to discovering a hidden Easter egg in a labyrinthine statistical landscape, and beckon further exploration to unravel the delightful intricacies of these peculiar associations.

Directing attention to Figure 1, we proudly present a scatterplot that graphically illustrates the marked correlation between Republican votes for Senators in Utah and fossil fuel use in Suriname. This depiction encapsulates the essence of our research endeavors, encapsulating the unexpected fusion of these variables in a visually compelling manner.



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

In summary, our findings not only unravel the enigmatic connection between these seemingly incongruent factors but also underscore the capricious nature of empirical inquiry, infusing an element of levity into the conventional milieu of statistical exploration.

### *Discussion of findings*

The findings of our study extraordinarily corroborate the insights gleaned from prior research, affirming the unlikely yet captivating relationship between Republican votes for Senators in Utah and fossil fuel use in Suriname. Our results, with a correlation coefficient of 0.8725118 and a p-value of less than 0.01, provide compelling evidence that this quirky correlation is not just a statistical fluke but a substantial and robust phenomenon.

Drawing on the literature review's whimsical sources, our study aligns with the concept of unexpected connections in "Oil and Water" by Robinson. Additionally, the power struggles and allegiances portrayed in J.K. Rowling's "Harry Potter" series echo the intricate dynamics evident in our findings, showcasing the enchanting resemblance between magical narratives and statistical analyses.

The scatterplot in Figure 1 is a visual delight, akin to discovering a rare Pokémon in the wilderness of data visualization. This graphical representation not only captures the essence of our findings but also serves as a testament to the unexpected fusion of variables, reminiscent of a serendipitous encounter in a statistical safari.

Our study emphasizes the capricious nature of empirical inquiry, akin to embarking on a delightful scavenger hunt through the vast expanse of statistical landscapes. Just as the back covers of shampoo bottles offer surprising narratives, our research unravels an enigmatic connection that transcends the boundaries of conventional statistical relationships, embodying the spirit of irreverent curiosity.

In conclusion, the peculiar correlation between Republican votes for Senators in Utah and fossil fuel use in Suriname not only adds a touch of whimsy to the world of statistical exploration but also underscores the delightful intricacies and unexpected correlations that infuse scholarly inquiry with a dash of unanticipated charm.

### *Conclusion*

In conclusion, our research unearths a whimsical correlation between Republican votes for Senators in Utah and fossil fuel use in Suriname, akin to discovering a lively conga line at a solemn academic soirée. The robust correlation coefficient of 0.8725118, with a p-value reminiscent of a well-behaved specter lingering below the revered threshold of 0.01, beckons to us like a well-executed punchline in the comedy of statistical analysis. The r-squared value of 0.7612769 adds an exclamation point to this unlikely union, much like an unexpected pun punctuating a droll discourse.

As we reflect on these findings, we cannot help but marvel at the curious caprices of empirical inquiry, reminiscent of a jester's jest amid the stately court of statistical exploration. Our study not only sheds light on this quixotic relationship but also brings

a touch of levity to the staid corridors of academic scholarship.

In light of our findings, we assert with a wink and a nod that further research in this area is akin to beating a dead horse in a statistical stable—unnecessary and potentially hazardous to one's academic reputation. Our endeavor stands as a beacon of mirthful inquiry, urging fellow researchers to embrace the delightful quirks and serendipitous associations that enliven the often sober landscape of empirical investigation.

No further statistical acrobatics are warranted to substantiate this whimsical connection, for the evidence is as clear as the nose on a principal component's face—much to the chagrin of the uninitiated. With a metaphorical tip of our academic hats, we bid adieu to this unlikely yet charming dalliance between Republican votes and Surinamese energy proclivities, leaving it as a testament to the unpredictable and jovial nature of empirical scholarship.