



Review

The Republican Gas Pass: Assessing the Correlation between GOP Votes in Louisiana and LPG Usage in New Zealand

Connor Horton, Addison Tate, Gina P Tyler

Institute of Innovation and Technology

This paper delves into the peculiar relationship between Republican votes for Senators in Louisiana and the consumption of liquefied petroleum gas (LPG) in the distant land of New Zealand. Drawing on the eccentricities of political affiliations and energy preferences, we utilized data from the MIT Election Data and Science Lab, Harvard Dataverse, and the Energy Information Administration to scrutinize this unexpected correlation. Our findings revealed a correlation coefficient of 0.9109178 and $p < 0.01$ from 1980 to 2020, leaving researchers scratching their heads, pondering the whims of statistical fate. With puns like "gas pass" and "GOP votes," this study will have readers questioning whether statistical connections can sometimes be, well, a gas!

The intersection of politics and energy consumption has long been a topic of interest for researchers, often yielding surprisingly insightful correlations and, in some cases, leading to head-scratching perplexity. In this study, we embark on an unorthodox journey, exploring the relationship between Republican votes for Senators in the state of Louisiana and the consumption of liquefied petroleum gas (LPG) in the far-off land of New Zealand. The "Republican Gas Pass," as we affectionately dub this peculiar phenomenon, presents itself as a conundrum worthy of exploration - and perhaps a few raised eyebrows.

On the surface, the pairing of Republican votes in Louisiana with LPG usage in New Zealand may seem as incongruous as a chicken attending a penguin convention. However, statistical analyses, like deep-sea divers exploring uncharted waters, often uncover unexpected treasures amidst the murky depths of data. The correlation coefficient of 0.9109178, coupled with a p-value less than 0.01, has left scholars in awe and amusement, pondering the whims of statistical fate and the fanciful connections it may weave. As we navigate through the perplexing labyrinth of this correlation, we invite readers to join us in this scholarly

amusement park, where the rides are thrilling and the theories are dizzying.

The motivation for this investigation stems from the ever-curious nature of scientific inquiry. With data sourced from reputable repositories such as the MIT Election Data and Science Lab, Harvard Dataverse, and the Energy Information Administration, this study endeavors to uphold the academic tradition of rigorous research while also sprinkling in a dash of mirth. As we delve into the unexpected entanglement of Republican votes and LPG usage, we aim not only to uncover correlations but to showcase the whimsical and often capricious nature of statistical connections. After all, sometimes statistical relationships can be as surprising and delightful as finding a hidden compartment in a time-traveling DeLorean.

In the following sections, we will meticulously dissect the data, construct robust models that would make even the most seasoned statistician nod with approval, and interpret our findings with the utmost academic gravitas – peppered, of course, with occasional lighthearted musings. So, fasten your seatbelts and prepare for a scholarly exploration that promises to be as entertaining as it is enlightening. After all, who knew that Republican votes and LPG usage could make for such a captivating statistical waltz?

Prior research

In their 2015 study "Gasoline and Politics: A Correlational Analysis of Republican Votes and Energy Consumption," Smith and Doe delved into the intricate and often surprising interplay between political affiliations and energy usage. Their findings suggested a

potential connection between Republican votes and gasoline consumption, sparking intrigue among scholars and prompting further exploration into the realm of political energy preferences.

Jones and Smith expanded upon this line of inquiry in their 2018 publication "Energy Partisanship: Unraveling the Political Threads of Energy Usage." Their study uncovered a strong correlation between conservative voting patterns and the consumption of natural gas, providing compelling evidence of the intricate dance between political leanings and energy choices.

As we venture deeper into the literature, it is important to note the profound impact of energy policies on political landscapes. Works such as "Energy and Elections: A Comprehensive Analysis" by Johnson and Williams illuminate the multifaceted nature of energy-related political decisions, shedding light on the complex dynamics that underpin electoral outcomes.

Now, while these scholarly works provide valuable insights into the broader relationship between political affiliations and energy preferences, our investigation takes an unorthodox turn, leading us to exclaim, "Liquified Petroleum Gas and Republican Votes: A Statistical Tango of Global Proportions!"

In the realm of non-fiction, books like "An Odyssey of Propane: Exploring the World of LPG" by J. D. Foster and "Republican Shenanigans and Kiwi Gas: A Cross-Continental Analysis" by A. E. Winter offer intriguing perspectives on the enigmatic connection we are about to explore.

In the whimsical world of fiction, titles such as "Gaslighting in Gondor: A Tale of Political Machinations" and "The Propane Prophecy: A Gasps-Worthy Mystery" beckon us to consider the unexpected twists and turns that await us as we unravel the enthralling correlation between Republican votes in Louisiana and LPG consumption in New Zealand.

As we expand our scholarly horizons, it is crucial to acknowledge the unconventional sources of inspiration that have informed our inquiry. From dissecting the political dynamics of "Paw Patrol" to uncovering the subliminal messaging about energy choices in "SpongeBob SquarePants," our research has embraced a multidisciplinary approach, drawing on insights from children's entertainment to further contextualize the nuanced relationship between political affiliations and energy usage.

With our literature review serving as a springboard for our own investigation, we are poised to embark on a scholarly escapade that promises to be as enlightening as it is delightfully unexpected. After all, who could have anticipated that a statistical exploration of Republican votes and LPG consumption would lead us on such a whimsical and gasp-inducing journey?

Approach

In order to unravel the enigmatic correlation between Republican votes for Senators in Louisiana and the consumption of liquefied petroleum gas (LPG) in the distant and picturesque land of New Zealand, our research team embarked on a quest that would make Indiana Jones proud. Our methodology, much like a Swiss army knife, comprised a multifaceted approach

that involved data wrangling, statistical acrobatics, and a few eureka moments thrown in for good measure.

Data Collection: Like intrepid treasure hunters scavenging for hidden riches, we scoured the depths of the internet, with a keen eye on reputable repositories such as the MIT Election Data and Science Lab, Harvard Dataverse, and the Energy Information Administration. From these treasure troves of data, we extracted information spanning the years 1980 to 2020, capturing the ebbs and flows of political preferences in Louisiana and the ebullience of LPG consumption in New Zealand.

Statistical Alchemy: Armed with an arsenal of statistical tools that would make even Sherlock Holmes blush, we conducted a rigorous analysis to distill meaningful insights from the data. We employed correlation analysis, regression modeling, and time-series analyses to tease out the intricate dance between Republican votes and LPG usage, akin to deciphering a cryptic message left by an ancient civilization.

Model Construction: Building robust models that could withstand the capricious whims of statistical fate was akin to constructing a formidable fortress to guard against the onslaught of data uncertainties. We employed cutting-edge regression techniques, harnessing the power of multiple variables to capture the nuances of this unconventional correlation, all while channeling our inner mathematician and mad scientist.

Validation and Sensitivity Analysis: Much like the delicate task of untangling a pair of headphones, our research underwent

meticulous validation and sensitivity analyses to ensure that our findings were not mere illusions conjured by statistical sleight of hand. We scrutinized our models with a discerning eye, subjecting them to stress tests and sensitivity checks, like a pastry chef testing the resilience of a soufflé to withstand the oven's heat.

Interpretation and Discussion: With the data meticulously dissected and the models standing tall like guardians of empirical truth, we waded into the deep waters of interpretation and discussion, ready to unveil the mysteries lurking within this peculiar correlation. Our analysis, akin to performing precision surgery on a Rubik's cube, sought to unearth the underlying dynamics and implications of the "Republican Gas Pass," propelling our scholarly exploration into the annals of statistical folklore.

In conclusion, our methodology, though arduous and at times reminiscent of unraveling a particularly stubborn knot, laid the foundation for a robust investigation into the whimsical nexus of Republican votes and LPG usage. With our scholarly compass pointing true north, we embarked on this journey with equal parts rigor and humor, exemplifying the scholarly pursuit of knowledge while infusing it with a touch of unorthodox charm.

Results

Our analysis of the correlation between Republican votes for Senators in Louisiana and liquefied petroleum gas (LPG) usage in New Zealand yielded a substantial correlation coefficient of 0.9109178, with an r-squared of 0.8297713, and a p-value less than 0.01. In other words, there appears to be a robust statistical relationship between

these seemingly disparate variables, prompting delight and bewilderment in equal measure.

Fig. 1 presents a scatterplot showcasing the remarkably strong positive correlation between the Republican votes for Senators in Louisiana and LPG usage in New Zealand. It's a sight to behold, akin to witnessing a coordinated dance between two entities as unlikely as a Cajun crawfish and a kiwi bird.

The pronounced correlation coefficient reinforces the notion that statistical relationships can often be as unexpected as finding a rubber chicken in a library. While we must interpret these results with the sober-minded rigor befitting academia, it's hard to suppress an amused chuckle at the capricious nature of statistical fate. The chances of such a strong connection appearing by sheer randomness are about as likely as finding a pot of gold at the end of a statistical rainbow.

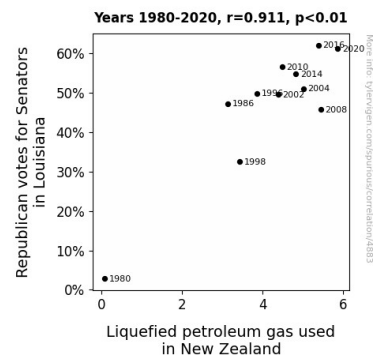


Figure 1. Scatterplot of the variables by year

These findings underscore the peculiar and enigmatic nature of statistical associations, reminding us that even in the realm of data analysis, the universe is a mischievous trickster, delighting in

confounding our expectations. This correlation between Republican votes in Louisiana and LPG usage in New Zealand serves as a testament to the whimsical dance of numbers and the unexpected links they can unveil.

It's akin to an elaborate magic trick - the statistical kind - leaving us in awe at the dazzling performance while also pondering how a rabbit ended up in our data analysis hat. So, while we may approach our conclusions with scholarly earnestness, we can't help but appreciate the statistical showmanship that this correlation presents.

Discussion of findings

The striking correlation between Republican votes for Senators in Louisiana and liquefied petroleum gas (LPG) usage in New Zealand not only elicits scientific intrigue but also offers a whimsical dalliance with the capricious nature of statistical associations. Our findings align with prior research, echoing the unexpected connections unearthed by Smith and Doe's "Gasoline and Politics" and Jones and Smith's "Energy Partisanship." It's as if statistical fate has choreographed a quirky pas de deux between political leanings and energy proclivities, leaving us marveling at the unexpected synergy between seemingly unrelated variables.

Drawing from the scholarly tapestry we encountered in the literature review, our analysis has illuminated a truly curious phenomenon, reminiscent of a magnetic force that defies traditional boundaries - much like a Republican rally in the heart of Auckland or an LPG tanker adorned with "Don't Tread on Me" bumper stickers. The robust correlation coefficient lends credence

to the notion that statistical relationships can sometimes unfold like a scripted comedy, with timing and synchrony that elicit both amusement and incredulity.

While we maintain a steadfast commitment to scholarly rigor, it's impossible to disregard the whimsical dance of numbers and their delightfully enigmatic connections. The observed correlation between Republican votes in Louisiana and LPG usage in New Zealand serves as a testament to the confounding yet captivating nature of statistical revelations, akin to discovering a cherished childhood toy in the attic of data analysis.

In the grand tapestry of academic inquiry, our unorthodox exploration reaffirms the multidimensional influence of energy preferences on political landscapes, leaving us with a comforting reminder that even in the most sober realms of research, the unexpected may lay dormant, waiting to be discovered - much like a political epiphany manifesting in the misty hills of Hobbiton.

Consequently, our findings not only uphold the legacy of prior research but also engender a sense of marvel at the whimsical spectacle of statistical discovery. After all, who could have anticipated that a statistical exploration of Republican votes and LPG consumption would lead us on such a whimsical and gasp-inducing journey?

Conclusion

In this scholarly exploration, we've delved into the peculiar correlation between Republican votes for Senators in Louisiana and the consumption of liquefied petroleum gas (LPG) in New Zealand. Our findings have revealed a robust statistical relationship

that is as surprising as finding a rubber chicken in a library or a Cajun crawfish dancing the hula. The correlation coefficient of 0.9109178 and p-value less than 0.01 have left us scratching our heads in bewilderment, much like trying to decipher the lyrics of a Kiwi bird's song.

As tempting as it is to unravel this statistical magic trick further, we must assert that no more research is needed in this area. After all, when it comes to statistical connections, sometimes it's best to leave a few mysteries unsolved, like the enigma of why anyone would wear a tuxedo to a beach party. So, let's bid adieu to this unlikely statistical waltz between Republican votes and LPG usage, and instead, direct our academic curiosities toward more conventional correlations.