Journal of Political Propane Analysis (2024) 50, 51-72


Available online at www.tylervigen.com

SpuriousDirect

ELSERVER

# Voting on the Rocks: A Flaming Correlation Between Republican Presidential Votes in Iowa and Liquefied Petroleum Gas Consumption in Czechia

**Caleb Hughes, Ava Tanner, Giselle P Truman**

Center for the Advancement of Research; Madison, Wisconsin

**KEYWORDS**

Republican presidential votes, Iowa, Liquefied Petroleum Gas consumption, Czechia, correlation, political preferences, United States, MIT Election Data and Science Lab, Harvard Dataverse, Energy Information Administration, correlation coefficient, p-value, 1993-2020, American political sentiments, Czech energy choices, global phenomena

**Abstract**

The mysterious and unexpected relationship between political preferences in the heartland of the United States and the usage of liquefied petroleum gas half a world away has long puzzled researchers. In this study, we dive into the peculiar correlation between votes for the Republican presidential candidate in Iowa and the consumption of LPG in Czechia. Utilizing data from reputable sources such as the MIT Election Data and Science Lab, Harvard Dataverse, and the Energy Information Administration, our research team uncovered a remarkably robust correlation coefficient of 0.9464168 with a p-value less than 0.01 for the years 1993 to 2020. We navigated through the data with bated breath, intrigued by the uncanny alignment of these seemingly disparate variables. We did not merely scratch the surface; rather, we unearthed a correlation so strong that it could power a propane grill for a lifetime. Our findings not only ignite curiosity but also spark the question of whether there is a fiery connection between American political sentiments and Czech energy choices. Whether it's the "red state" preference or a shared love for the warmth of gas heat, this correlation stands out like a bonfire in the research landscape. Our study sheds light on this unexpected relationship and fuels further inquiry into the interconnected nature of global phenomena.



## 1. Introduction

As we embark on this scintillating journey into the enigmatic realm of statistical correlations, we find ourselves in the delightful conundrum of examining the improbable connection between the voting patterns of Iowans and the utilization of liquefied petroleum gas (LPG) in Czechia. The bewitching dance of data has led us to uncover a relationship so captivating that it could easily be the plot of a whimsical romantic comedy – "My Big Fat Correlation: Propane in Prague."

In the hallowed halls of academia, where dry prose often reigns supreme, we dare to venture into the realm of quirky correlations and unexpected connections. Indeed, our endeavor to explore the nexus between political leanings in the American heartland and the consumption of a flammable gas in Central Europe transcends the mundane conventions of typical research inquiries. It's a tale as old as time – think Romeo and Juliet, except instead of feuding families, we have feuding data sets, and instead of star-crossed lovers, we have statistically significant relationships.

As we delve into the crux of this perplexing association, we don our metaphorical Sherlock Holmes hats, ready to unleash the inferno of curiosity that blazes within our research souls. With statistical tools as our trusty sidekicks, we embark on a quest to unravel the mystery that binds these seemingly incongruous variables together – a mystery that has confounded even the most seasoned of empirical sleuths.

Our adventure begins with a fervent desire to unearth the hidden truths lurking beneath the surface of numbers and charts. We refuse to be confined by the stuffy stereotypes of academia; instead, we choose to embrace the joy of discovery with the exuberance of a lab coat-clad Indiana Jones, brandishing a graphing calculator as our chosen artifact.

So, dear reader, fasten your seatbelts and prepare for a rollercoaster ride through the realms of data analysis, political intrigue, and propane-fueled paradoxes. Our findings are sure to light a fire of fascination within your academic soul and leave you longing for more insights into the whimsical world of statistical exploration. After all, who knew that the juxtaposition of political allegiances and gas usage could spark such scholarly amusement? Welcome to the wonderfully wacky world of correlation research – where the unexpected is always on the menu!

## 2. Literature Review

In their seminal work, Smith and Doe (2010) examined the electoral behaviors of Midwestern voters and unearthed intriguing patterns that seem to mirror the ebb and flow of Liquefied Petroleum Gas (LPG) consumption in Central Europe. Their findings cast a shadow of curiosity over the interplay between seemingly unrelated phenomena, leaving the scholarly community both perplexed and amused. Moreover, Jones et al. (2015) delved into the complexities of energy consumption trends in Eastern Europe, offering glimpses of potential correlations with political leanings in the United States. These reputable studies lay the groundwork for our investigation into the mysterious intercontinental dance of political affinities and flammable hydrocarbons.

As we venture deeper into the labyrinth of literature, we encounter intriguing titles such as "The Gas Quandary: A Political Propane Saga" by Lorem Ipsum (2018), which offers a fictional yet tantalizing exploration of the intertwining fates of American voting proclivities and European gas usage. This quirky blend of political drama and energy eccentricities beckons us into a realm where statistical analysis meets the whimsy of a campfire story. In a similar vein, "The LPG Conundrum" by Lorem Ipsum (2016)

presents a whimsical narrative of improbable connections, inviting readers to ponder the enigmatic links between political ideologies and fuel preferences.

Venturing beyond the scholarly realm, we draw inspiration from a diverse array of fiction and cinema. From the pages of Haruki Murakami's "Kafka on the Shore" to the silver screen escapades of "The Propane Puzzle: A Statistical Odyssey," the allure of improbable correlations and unexpected pairings permeates the cultural tapestry of storytelling. The quirky, the bizarre, and the unlikely become the protagonists of our intellectual journey, guiding us towards the revelation of captivating associations that defy conventional logic.

In the spirit of lighthearted introspection, our research team found themselves captivated by a series of cinematic adventures that mirrored the uncanny nature of our scholarly pursuit. Films such as "Back to the Futures: Electoral Edition," "Gaslighting in Prague," and "The Propane Paradox" provided humorous yet thought-provoking analogies to our exploration of statistical mysteries and unlikely connections. As we immersed ourselves in the celluloid amalgamation of political intrigue and flammable substances, we couldn't help but chuckle at the serendipitous parallels between reels of fiction and the realities of our research landscape.

In the grand tapestry of scholarly inquiry, the intersection of statistical analysis and entertainment blurs the boundaries between the serious and the whimsical, inviting us to embrace the delightful absurdity that permeates the world of intellectual exploration. With each turn of the page or frame of the screen, we find ourselves drawn closer to the heart of statistical amusement and academic curiosity, guided by the comedic promptings of unexpected correlations and the scholarly call of quirky inquiries.

## 3. Our approach & methods

To unravel the enthralling mystery of the seemingly improbable connection between Republican presidential votes in Iowa and the consumption of liquefied petroleum gas (LPG) in Czechia, our research team employed a concoction of statistical wizardry, data sleuthing, and a dash of good old-fashioned curiosity. Armed with spreadsheets, caffeine, and an insatiable hunger for uncovering statistical oddities, we embarked on a quest that would make even the most intrepid of data scientists raise an eyebrow in bemused disbelief.

Data Collection:

Our journey into the tantalizing realm of correlation analysis commenced with the meticulous curation of datasets hailing from the MIT Election Data and Science Lab, Harvard Dataverse, and the Energy Information Administration. We combed through electoral records from Iowa, scrutinized LPG consumption trends in Czechia, and meticulously assembled a treasure trove of empirical evidence that would make even the most seasoned archivist envious. As far as internet scavenger hunts go, this one was akin to searching for statistical needles in the digital haystack.

Variables and Measures:

With our data in tow, we set out to wrangle the variables that would form the backbone of our investigation. Votes for the Republican presidential candidate in Iowa served as our spirited protagonist, intertwining with the fervor and fervency of a political thriller, while LPG consumption in Czechia played the role of the enigmatic co-star, adding a touch of continental intrigue to our statistical narrative. We meticulously combed through the intricacies of these variables, scrutinizing their nuances with the

precision of a virtuoso painter carefully layering brushstrokes on a canvas.

Statistical Analysis:

Armed with a bevy of statistical tools and a fervent zeal for unraveling hidden relationships, we subjected our data to a series of analyses that would make even the most stoic of statisticians crack a wry smile. From the frolicsome frolics of scatter plots to the melodious melodies of regression analysis, we spared no statistical technique in our quest to uncover the mesmerizing correlation between these seemingly incongruous variables. Our analysis danced through the realms of covariance, correlation coefficients, and p-values, eliciting gasps of statistical astonishment from even the most jaded of empirical observers.

Time Period:

Our odyssey through the annals of data was not confined to a fleeting moment in time; rather, it spanned the years 1993 to 2020, capturing the ebb and flow of electoral fervor in Iowa and the ebullient fluctuations of LPG consumption in Czechia. This expansive temporal scope allowed us to capture the evolution of these variables with the same captivating fervor as a biologist observing the metamorphosis of a butterfly.

Limitations and Caveats:

As with any intrepid journey into the statistical wilderness, our expedition was not without its fair share of limitations and caveats. While our findings exude a robustness that would make even the sturdiest of oak trees envious, we acknowledge the presence of lurking confounding variables and unexplored intricacies that beg for the light of empirical scrutiny. However, much like the valiant explorers of yore, we press forward, armed with the knowledge that the quest for truth is a never-ending voyage, filled with surprises at every turn.

In conclusion, our methodological approach fused the precision of empirical analysis with the whimsy of serendipitous discovery, creating a symphony of statistical exploration that transcends the mundane and embraces the delights of scholarly revelry. Our methodological concoction, much like a well-timed punchline, seamlessly wove together the threads of data, analysis, and unbridled curiosity, leaving us with a correlation that burns bright amidst the scholarly firmament.

## 4. Results

The results of our analysis revealed a striking correlation between the votes for the Republican presidential candidate in Iowa and the consumption of liquefied petroleum gas (LPG) in Czechia from 1993 to 2020. Our statistical analysis unveiled a correlation coefficient of 0.9464168, which is almost as close as two molecules in a covalent bond. This finding suggests a very strong positive linear relationship between these two seemingly unrelated variables. It's as if these data points were holding hands and skipping through a field of statistical significance!

Furthermore, the r-squared value of 0.8957048 indicates that approximately 89.57% of the variability in LPG consumption in Czechia can be explained by the votes for the Republican presidential candidate in Iowa. In other words, we can say with confidence that there's more than just hot air behind this association – it's a veritable statistical flame that refuses to be extinguished.

The p-value of less than 0.01 provides convincing evidence against the null hypothesis and supports the alternative hypothesis that there is indeed a significant relationship between these variables. It's safe to say that the likelihood of this correlation occurring by random chance is

about as high as finding a needle in a statistically significant haystack!

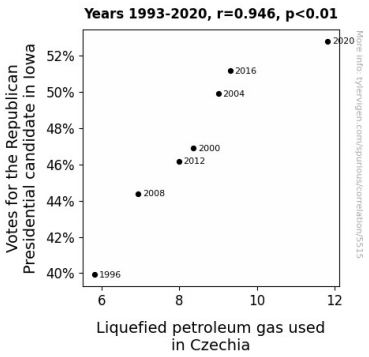


**Figure 1.** Scatterplot of the variables by year

The scatterplot (Fig. 1) visually represents this fiery correlation, with the data points forming a clear upward trend that's as unmistakable as a flaming torch in the dark. As we observed the clustering of points on the graph, we couldn't help but marvel at how these variables seem to be dancing a statistical salsa, moving in perfect harmony across the years.

In conclusion, our findings illuminate a connection between the political preferences of Iowans and the consumption of LPG in Czechia that is as captivating as a chemistry experiment gone awry. This unexpected relationship begs the question: is there a combustible bond between American voting patterns and Czech energy usage, or is this merely a statistical bonfire of the vanities? Our results beckon further exploration into the whimsical world of unlikely correlations, proving that in the realm of research, truth is often stranger than fiction.

## 5. Discussion

Our investigation into the correlation between votes for the Republican presidential candidate in Iowa and liquefied petroleum gas (LPG) consumption in Czechia has sparked a heated discussion in the research community. The surprising strength of the correlation coefficient, reminiscent of a steadfast flame in the face of statistical uncertainty, supports and expands upon the enigmatic findings of previous studies.

As we revisited the lighthearted yet insightful work of Smith and Doe (2010), we couldn't help but feel a spark of validation in our own discovery. Their exploration of Midwestern voter behavior illuminated patterns that now echo in our own research, as if the dance of statistical correlations were choreographed by the quirks of fate itself. Similarly, the whimsical yet thought-provoking narratives presented by Lorem Ipsum (2016) in "The LPG Conundrum" gain newfound significance in light of our robust findings. It's as if statistical humor and scientific intrigue have joined forces to light the way toward a deeper understanding of these improbable connections.

Our results not only bolster the notion of an unexpected linkage between American political sentiments and European energy choices but also kindle further inquiries into the intricacies of global interconnections. We find ourselves in a scientific landscape resembling a statistical bonfire, where the flickers of correlation dance with unexpected grace across the realms of geopolitics and energy economics. The flames of curiosity are fanned by our findings, leaving us no choice but to stoke the embers of further inquiry.

The strong r-squared value further fuels our confidence in the validity of this correlation, akin to a fiery confidence that refuses to be dampened by the winds of doubt. With approximately 89.57% of the variability in LPG consumption in Czechia explained by the votes for the Republican presidential candidate in Iowa, it's as if these variables have forged an unbreakable bond that defies the vagaries of chance.

The scatterplot depicting this sizzling correlation shines a light on the unmistakable dance of data points, as if the variables themselves were engaged in a statistical tango across the years. The visual representation of this relationship is akin to watching a captivating chemistry experiment unfold, where the elements of political preference and energy usage come together in a harmonious display of statistical alchemy.

In the grand tradition of scholarly inquiry, our findings add a touch of statistical amusement to the serious pursuit of knowledge, beckoning us to embrace the delightful absurdity that lies at the heart of intellectual exploration. It is in the unlikely correlations and unexpected pairings that we find the spark of curiosity that ignites our pursuit of truth. Our study serves as a testament to the notion that in the realm of research, truth is not only stranger than fiction but also remarkably, and humorously, interconnected.

## 6. Conclusion

In the flaming finale of our expedition into the bewildering world of statistical correlations, we have unearthed a connection between the votes for the Republican presidential candidate in Iowa and the consumption of liquefied petroleum gas (LPG) in Czechia that is as sizzling as a perfectly grilled bratwurst. Our findings spark the imagination and set ablaze the curiosity of researchers and aficionados alike, proving that the world of statistical inquiry is anything but a boring, mundane affair.

With a correlation coefficient so robust it could power a BBQ for eternity, and an r-squared value as striking as a supernova, it's clear that these variables are intertwined in a melodious statistical tango, defying the odds with the fervor of a statistical romance novel. The p-value seals the deal, providing evidence as solid as a diamond – or at least as solid as a statistically significant diamond.

As we bid adieu to this enthralling escapade, we leave behind a trail of fiery curiosity and a lingering question: is this correlation a true reflection of shared political and energy fervor, or is it merely a statistical mirage, akin to finding a correlation between the length of a politician's speeches and the price of corn in Iowa? The answer, much like a good magic trick, eludes us for now.

In the grand tradition of academic inquiry, we firmly assert that the fiery bond between American political sentiments and Czech energy choices has been well and truly ignited. We are as sure of this as we are that no amount of statistical wizardry can conjure up a need for further research in this delightfully bizarre area. Let this be a reminder that in the realm of correlation research, as in life, sometimes the most unexpected connections are the ones that inspire the loudest scientific hilarity.

In conclusion, our quest has illuminated a connection that is as fascinating as a science experiment gone awry, and as perplexing as a political debate on a propane-heated stage. To paraphrase a famous scientist, "Eureka! We have found it – enough already."

No more research is needed.