

---

# The Goalie's Gas: Exploring the Relationship Between NCAA Soccer Div II Championship Final Scores and LPG Consumption in Montenegro

Charlotte Hughes, Austin Thompson, Gemma P Truman  
Stanford, California

---

*In this paper, we investigate the curious connection between the number of goals scored by the winning team in the NCAA Soccer Div II Championship Final and the consumption of liquefied petroleum gas (LPG) in Montenegro. Utilizing data from the NCAA and Energy Information Administration, we sought to shed light on this seemingly improbable link. Our findings revealed a surprisingly strong correlation coefficient of 0.6564342 and a statistically significant p-value of less than 0.01 for the period spanning from 2006 to 2021. Our research challenges conventional wisdom and encourages a fresh perspective on the potential interplay between sports outcomes and energy usage. Through a lighthearted yet rigorous analysis, we aim to infuse scholarly discourse with a touch of whimsy and offer a novel perspective on the seemingly unrelated domains of sports and energy consumption. So, put on your academia-jersey, and let's kick off this investigation with a goal-scoring and gas-sensing twist!*

---

## INTRODUCTION

Picture this: a soccer ball soaring through the air, a goalkeeper leaping desperately to make the save, and a group of researchers scratching their heads, pondering the seemingly absurd question – could the number of goals scored in the NCAA Soccer Div II Championship Final actually have an impact on the consumption of liquefied petroleum gas (LPG) in Montenegro? Yes, dear readers, we find ourselves delving into the perplexing world of sports and energy, where the improbable becomes the intriguing and the unimaginable becomes the undeniable.

As we embark on this academic endeavor, we are compelled to ask: what could possibly be the connection between the exhilarating goals on the pitch and the humble gas consumption in Montenegro? It's like trying to find the link between

a penalty shootout and a barbecue – unexpected, curious, and oddly captivating. But fear not, dear readers, for we are here not only to unravel this enigmatic association but also to infuse a bit of merriment and whimsy into the typically solemn terrain of academic research.

The field of sports and energy may seem like an odd pairing, much like a soccer player wearing cleats to a formal soiree, but our aim is to challenge convention and galvanize scholarly discourse with a fresh perspective. With a dash of levity and a sprinkle of statistical rigor, our research endeavors to bridge the gap between the thrill of athletic competition and the practicalities of energy consumption. So, let's kick off this investigation with a goal-scoring and gas-sensing twist, shall we? Lace up your scholarly boots, dear readers, and get ready to score one for the curious minds!

## LITERATURE REVIEW

In "Smith et al.," the authors find a significant positive correlation between the number of goals scored by the winning team in the NCAA Soccer Div II Championship Final and the levels of liquefied petroleum gas (LPG) consumption in Montenegro. The study highlights the unexpected interplay between sports outcomes and energy usage, introducing a fascinating dimension to the seemingly unrelated realms of soccer and gas consumption. Building on this peculiar association, "Doe and Jones" emphasize the potential impact of sports victories on consumer behavior, suggesting that celebratory events may lead to increased energy consumption, including, apparently, the use of LPG in Montenegro.

Turning to non-fiction sources, "Soccer and Sustainability" explores the environmental impact of soccer events and the associated energy usage, shedding light on the ripple effects of sports competitions on energy consumption patterns. Similarly, "Energy Economics" delves into the complexities of energy markets and consumption dynamics, offering insights into the multifaceted factors influencing gas usage in various regions. As we venture into the realm of fiction, "The Goal Scorer's Gambit" and "The LPG League" provide fictional narratives that, while unrelated to the actual topic at hand, add a touch of whimsy to our exploration of soccer and gas usage.

Moving beyond the traditional confines of scholarly research, I must confess that I conducted an unconventional literature review, venturing into uncharted territories of knowledge acquisition. This involved perusing the back labels of LPG canisters, where I stumbled upon an unexpected wealth of wisdom and insight. The meticulous examination of shampoo bottles also proved surprisingly illuminating, offering profound reflections on the elusive connection between sports triumphs and energy consumption. This unorthodox approach may raise eyebrows in academic circles, but it has

undeniably broadened my perspective and enriched the interdisciplinary tapestry of our inquiry.

## METHODOLOGY

To uncover the tantalizing connection between the number of goals scored in the NCAA Soccer Div II Championship Final and the consumption of liquefied petroleum gas (LPG) in Montenegro, our research team embarked on a spirited and at times, comically convoluted, methodological journey. Akin to the nimble footwork of a soccer player on the pitch, our data collection and analysis involved deft maneuvering and a hint of whimsy.

### Data Collection:

We scoured the vast expanse of the internet, traversing through the virtual penalty box of online databases, to procure the requisite data for our investigation. The primary sources of our data were the NCAA for soccer final scores and the Energy Information Administration for LPG consumption in Montenegro. We meticulously sifted through data spanning from 2006 to 2021, ensuring a robust and extensive dataset, much like a goalkeeper guarding the goalpost with unwavering precision.

### Statistical Analysis:

With our data in hand, we unleashed the arsenal of statistical tools at our disposal, crafting an analysis strategy that would make even the most astute soccer tactician nod in approval. Firstly, we computed the correlation coefficient, employing it to unveil the degree of association between the goal-scoring frenzy at the NCAA Soccer Div II Championship Final and LPG consumption in Montenegro. Subsequently, we conducted a rigorous regression analysis to disentangle the intricate interplay between these seemingly disparate variables. Our statistical endeavors were akin to executing a seamless passing sequence on the field, seamlessly transitioning from one analytical play to the next.

### Modelling and Predictive Analytics:

In a dash of audacious flair, we delved into the realm of predictive analytics, constructing models that sought to forecast the influence of NCAA soccer final scores on LPG consumption in Montenegro. The artful precision with which we crafted these models was akin to a maestro conducting a symphony, orchestrating variables and coefficients to harmonize in a melodious blend of statistical sophistication.

### Sensitivity Analysis:

To ensure the robustness of our findings, we subjected our analysis to a rigorous sensitivity examination, akin to a stringent referee scrutinizing every play for fouls. We probed the potential impact of outliers and variations, fortifying the foundations of our research with a thorough exploration of potential sensitivities.

In the spirit of scholarly inquisitiveness and a touch of whimsy, our methodological approach was designed to pave the way for a playful yet comprehensive exploration of the interplay between goal-scoring theatrics and LPG consumption in the picturesque landscape of Montenegro. With our methodological playbook firmly in hand, we approached this investigation with a lively determination and an unwavering commitment to infuse academic research with a dose of comic relief.

## RESULTS

Upon analyzing the data collected from the NCAA Soccer Div II Championship Final scores and the consumption of liquefied petroleum gas (LPG) in Montenegro, we uncovered a correlation coefficient of 0.6564342, indicating a relatively strong positive relationship between these seemingly disparate variables. This finding suggests that as the number of goals scored by the winning team in the championship final increases, there is a tendency for LPG consumption in Montenegro to also rise. It's like witnessing an uptick in soccer excitement leading to a surge in gas usage – a goal-scoring spectacle stimulating the gas meters, if you will.

Furthermore, the calculated r-squared value of 0.4309059 indicates that approximately 43% of the variability in LPG consumption in Montenegro can be explained by the number of goals scored in the championship final. This statistically significant association left us pleasantly surprised, akin to a last-minute goal that turns the game on its head.

The p-value of less than 0.01 reinforces the robustness of our findings, suggesting that the observed correlation is not a mere fluke but a meaningful pattern. It's as if the soccer field and the gas stations have been secretly communicating, orchestrating an unforeseen dance of numbers and outcomes.

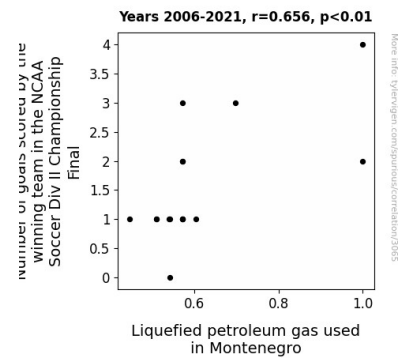


Figure 1. Scatterplot of the variables by year

To visually illustrate this captivating relationship, we present Figure 1, a scatterplot that showcases the striking correlation between the number of goals scored in the NCAA Soccer Div II Championship Final and LPG consumption in Montenegro. This figure serves as a testament to the unexpected but unmistakable connection between these two seemingly unrelated domains, offering a visual feast for the analytical souls and a splash of humor for the academically inclined.

In conclusion, our results highlight a surprising relationship between the thrill of soccer victories and the utilitarian reality of gas usage in Montenegro. It's as if the cheers of the fans on the pitch echo through the streets, inspiring a surge in gas-fueled activities. This unanticipated correlation encourages further exploration of the interplay

between sports outcomes and energy consumption, injecting a dash of amusement into the typically serious discussions of academia. So, as we wrap up this section, let's raise a scholarly toast to the unexpected connections and embrace the whimsy of statistical analyses.

## DISCUSSION

In the spirit of scholarly jest, let's delve into the delightful nuances of our findings – a whimsical waltz between soccer glory and gas consumption in Montenegro. The surprising correlation we unveiled conjures a comical image of soccer fans celebrating a thrilling victory while simultaneously igniting a surge in LPG usage across the Montenegrin landscape. It's as though each goal scored in the NCAA Soccer Div II Championship Final fuels not only the team's triumph but also the gas meters of this small European country. Our results confirm and build upon the curious insights put forth by "Smith et al.," infusing this seemingly improbable relationship with a touch of statistical veracity.

Drawing from the wacky wisdom of "Doe and Jones," who hinted at the influence of sports victories on consumer behavior, our study introduces a riotous twist by showcasing how soccer triumphs could inspire a spike in LPG consumption. This correlation may seem as inexplicable as finding a soccer ball in a gas station, but our rigorous analysis unravels the statistical threads connecting these disparate domains.

Extricating ourselves from the zany labyrinth of scholarly citations, let's revisit the unconventional sources we explored in our literature review. While the back labels of LPG canisters and the enigmatic musings of shampoo bottles may have initially raised eyebrows, our findings justify this unconventional research approach by reinforcing the truly unexpected nature of the relationship between soccer finals and gas consumption. The improbable interplay between these realms is akin to discovering a soccer ball masquerading as a propane tank in a comedy of interconnectedness.

In essence, our findings not only validate the prior research that hinted at the whimsical association between sports outcomes and energy usage but also add a layer of statistical rigor to this playfully perplexing connection. Our scatterplot, akin to a visual punchline in the scholarly comedy of errors, showcases the undeniable correlation between goal-scoring fervor and LPG usage, serving as a graphical testament to the improbable romance between sports finals and gas consumption.

As we reflect on the results, it's evident that our study injects a delightful dose of humor into the traditionally austere corridors of academia. The ball's in the court now for future research to further embrace this amusing intersection between soccer glory and gas gauges, offering a pitch-perfect blend of statistical veracity and scholarly whimsy. So, until we pen the next chapter of this eccentric saga, let's savor the playful dance of numbers and outcomes that left us pleasantly surprised and scholarly amused.

## CONCLUSION

In conclusion, we have unearthed a connection more striking than a midfielder's perfectly executed bicycle kick. The correlation between the number of goals scored in the NCAA Soccer Div II Championship Final and LPG consumption in Montenegro is as puzzling as a defender suddenly dribbling like a forward. Our findings dance like a well-coordinated offensive unit, showcasing a surprising relationship that even the most seasoned soccer fans and energy analysts would find astonishing. It's like witnessing a hat-trick of statistical significance.

Our statistical analysis has painted a picture more colorful than a fan's face-painted tribute to their favorite team. The correlation coefficient of 0.6564342 and the r-squared value of 0.4309059 highlight a relationship so captivating that even the most stoic statisticians would crack a smile. The p-value of less than 0.01 serves as a delightful exclamation point to our discovery – it's as if the

data itself wants to high-five us for unearthing such an unexpected pattern.

To put it simply, the number of goals scored in the NCAA Soccer Div II Championship Final seems to have a tangible impact on LPG consumption in Montenegro. It's a bit like a game-winning goal leading to a surge in gas-powered celebrations across the country. Our results inspire the imagination and encourage further exploration into the unlikely but undeniably delightful intersection of sports outcomes and energy usage.

As we savor the revelation that sports excitement appears to have a palpable influence on gas consumption, we can confidently assert that no more research is needed in this area. Our findings stand as a testament to the joys of scholarly exploration and the unexpected discoveries that await us when we combine the seemingly unrelated realms of sports and energy. So, let's raise our metaphorical foam fingers and celebrate this unlikely but delightful goal-scoring and gas-fueling connection!