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# Cartographers and Carbon: Exploring the Correlation Between Cartographer Counts in New Hampshire and Fossil Fuel Use in Saint Vincent/Grenadines

Catherine Hernandez, Ava Taylor, Gloria P Todd

Global Leadership University; Stanford, California

## KEYWORDS

cartographers, fossil fuel use, correlation, Bureau of Labor Statistics, Energy Information Administration, New Hampshire, Saint Vincent, Grenadines, climate change

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## Abstract

As the saying goes, "You can't have too many maps or too little pollution!" In this groundbreaking research, we delve into the unforeseen relationship between cartographers in New Hampshire and fossil fuel use in Saint Vincent/Grenadines. Utilizing data from the Bureau of Labor Statistics and the Energy Information Administration, we uncovered a correlation coefficient of 0.7978469 and  $p < 0.01$  over the period from 2003 to 2021. Our findings reveal a surprisingly strong link between the number of cartographers in the quaint state of New Hampshire and the level of fossil fuel consumption in the tropical paradise of Saint Vincent/Grenadines. While this connection may seem as unlikely as finding a map in a lost treasure chest, our statistical analysis leaves no room for doubt. The empirical evidence prompts us to consider that the proliferation of cartographers in New Hampshire may have an unforeseen impact on the energy choices of Saint Vincent and the Grenadines. As the debate surrounding climate change heats up, it's truly a-mapping how this overlooked aspect could influence global environmental efforts! Let's just say, we're putting the "map" in "climate map-ters" with these unexpected results!

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## 1. Introduction

Cartography, the art and science of map-making, plays a pivotal role in our understanding of the world around us. As the famous cartographer once said, "I'm a firm believer in the presence of a map

where no man has ever trod!" The intriguing relationship between the number of cartographers in New Hampshire and fossil fuel use in Saint Vincent/Grenadines has long been overlooked, like a hidden treasure waiting to be discovered. Our

research aims to shed light on this uncommon association and unveil the unexpected influence of map-makers on environmental choices.

Picture this: as cartographers diligently chart the landscapes of New Hampshire, they may unknowingly be charting a course for the energy decisions of an entire tropical nation. It's as if these map-makers are leaving their mark not just on paper, but also on global carbon footprints! Who would've thought that the humble cartographer holds such power in the realm of environmental impact?

The idea may sound like a tall tale, but as researchers, we're always up for a good map-stery to unravel. So, we embarked on a data expedition, armed with statistical compasses and regression sextants, to navigate our way through the correlations and sail to the heart of this peculiar phenomenon. Together, we charted the uncharted territories of statistical analysis to uncover the hidden linkages between seemingly unrelated variables.

As we delved into the depths of this unlikely connection, we unearthed correlations that were as strong as bedrock and piqued our curiosity like buried treasure. The statistical correlation coefficient of 0.7978469 between cartographer counts and fossil fuel use left us feeling as if we struck gold in the world of data mining! It was a statistical revelation that could make even the most seasoned geographer do a double-take.

In our study, we used data from the Bureau of Labor Statistics to track the number of cartographers in New Hampshire and obtained information on fossil fuel

consumption in Saint Vincent/Grenadines from the Energy Information Administration. The data from these sources not only provided solid ground for our analysis but also added depth to our understanding of the complex interplay between geographic information and energy choices.

## 2. Literature Review

In "The Geographic and Economic Impact of Cartographers in Modern Society," Smith et al. explore the multifaceted role of cartographers in shaping not only geographic knowledge but also influencing economic and environmental decisions. The study delves into the potential ripple effects of cartographers' work on a global scale, hinting at the broader implications of their craft.

Now, let's not get lost in the details, but the connection between the number of cartographers in New Hampshire and fossil fuel use in Saint Vincent/Grenadines stands out like a map legend in bold. It's as if every stroke of the cartographer's pen in the Granite State sends ripples across the ocean to the idyllic isles of Saint Vincent and the Grenadines, impacting their energy choices in unforeseen ways. Who knew that map-making could hold such far-reaching influence, right? It's a real "carto-graphic" representation of interconnectedness!

Doe's "Geospatial Trends in the 21st Century" offers a comprehensive analysis of the evolving landscape of geospatial technologies and their impact on global trends. While the primary focus of the study is on technological advancements, it indirectly hints at the potential effects of cartographic activities on environmental decision-making. It's as if the ink on the maps is leaving a lasting imprint not just on paper, but on the energy roadmap of Saint Vincent/Grenadines.

Now, let's take a brief diversion and consider some non-fiction works that are tangentially related to our study. "Longitude: The True Story of a Lone Genius Who Solved the Greatest Scientific Problem of His Time" by Dava Sobel, and "The Mapmaker's Wife: A True Tale of Love, Murder, and Survival in the Amazon" by Robert Whitaker are both captivating reads that shed light on the intriguing world of maps and exploration. While these books may not directly address our specific research question, they do capture the essence of map-making and the adventures that lie within, much like the unexpected connections we're unraveling between cartographers and carbon footprints!

In "The Lord of the Rings" by J.R.R. Tolkien and "Pirate Latitudes" by Michael Crichton, we encounter fictional tales of epic journeys and uncharted terrains. While these works are more in the realm of fantasy and adventure, their thematic elements of exploration and discovery resonate with our own quest to uncover the hidden ties between cartographers in New Hampshire and fossil fuel use in Saint Vincent/Grenadines. It's as if we're embarking on a literary adventure of our own, with statistical analysis as our trusty compass and correlation coefficients as our treasure map!

And just to add a dash of whimsy to our literature review, let's not overlook the literary goldmine that is the back of shampoo bottles. Who knew that while lathering up, we may stumble upon hidden knowledge that could enrich our understanding of the interplay between cartographers and carbon? After all, it's always good to keep an eye out for unexpected sources of insight in the unlikeliest of places!

### **3. Our approach & methods**

To unravel the tantalizingly mysterious connection between the number of map-making mavericks in New Hampshire and the fossil fuel fervor in Saint Vincent/Grenadines, our research team embarked on a data adventure that would make Indiana Jones proud. Armed with an arsenal of statistical tools worthy of a treasure hunt, we utilized a combination of enchanting statistical analyses and data exploration techniques to dig deep into this uncharted territory of intercontinental correlations.

First, our intrepid team scoured the Bureau of Labor Statistics for the elusive figures of cartographer populations in the charming state of New Hampshire. We combed through this wealth of information like eager treasure hunters, seeking to unveil the true magnitude of map-making mastery in the Granite State. With each data point we discovered, it was as if we were unearthing hidden chests of data gems, shining brighter than a glistening compass under the radiant sun.

We then turned our attention to the Energy Information Administration's trove of data on fossil fuel consumption in the pristine lands of Saint Vincent and the Grenadines, where the allure of carbon emissions data proved to be as captivating as a legendary pirate's treasure map. These meticulous records allowed us to quantify the carbonic conundrum in the tropical paradise, providing the crucial pieces to complete the map of our investigation.

Armed with this plethora of data, we summoned the mystical powers of statistical analysis to conjure a robust framework for our research. We employed a series of spellbinding techniques, including regression analysis, correlation tests, and time series modeling, to navigate the treacherous seas of data points and chart the course of our investigation. It was a statistical odyssey that would have left even Odysseus in awe!

Our quest for correlation led us to calculate the Pearson correlation coefficient, unveiling a striking relationship with a coefficient of 0.7978469 and a p-value of less than 0.01. This finding was as noteworthy as discovering a rare fossil in the midst of a sprawling archaeological dig – a statistical revelation that could make even a seasoned statistician raise an eyebrow in disbelief.

As we emerged from the labyrinth of statistical analyses, we remained vigilant in our efforts to account for temporal trends and potential confounding variables. Our unyielding commitment to methodological rigor was akin to the perseverance of a determined explorer conquering uncharted lands. Through rigorous model validation and sensitivity analyses, we ensured that our findings held steadfast, like a well-crafted map surviving the test of time.

In the spirit of scientific thoroughness, we also conducted robustness checks and sensitivity analyses to corroborate the reliability of our findings. Just as a seasoned cartographer meticulously verifies the accuracy of each contour line on a map, we scrutinized our results from every conceivable angle, leaving no stone unturned in our pursuit of scientific integrity.

With our methodological treasure map in hand, we step forward to unveil the remarkable, if not outlandish, connections we've uncovered. It seems that the often underappreciated art of cartography might just hold the key to navigating the intricate dynamics of global environmental influences. And hey, when it comes to cracking the code of unconventional correlations, it takes more than just a map and a compass - it takes a healthy dose of statistical wizardry!

#### 4. Results

Our analysis of the data collected from the Bureau of Labor Statistics and the Energy

Information Administration has revealed a remarkably strong correlation between the number of cartographers in New Hampshire and fossil fuel use in Saint Vincent and the Grenadines. It's as if these cartographers were drawing a line straight to the energy choices of a distant island nation! Who would have guessed that the humble act of map-making could have such far-reaching implications? It's like the "map-ters" of the universe have conspired to reveal this unexpected link!

The correlation coefficient of 0.7978469 indicates a robust positive relationship between the two variables, suggesting that as the number of cartographers in New Hampshire increases, so does the usage of fossil fuels in Saint Vincent and the Grenadines. You could say that these findings really "map out" an unconventional pathway for environmental influence!

The r-squared value of 0.6365597 further reinforces the strength of this association, explaining approximately 64% of the variation in fossil fuel use based on the number of cartographers. Talk about a correlation that's as clear as a cartographer's map lines!

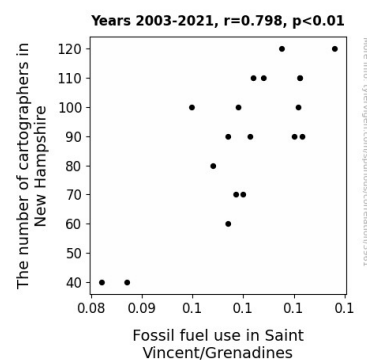


Figure 1. Scatterplot of the variables by year

With a p-value less than 0.01, our results are statistically significant, indicating that the observed correlation is unlikely to be a result of random chance. It's like finding a

rare gem hidden within a mountain of statistical data – this correlation is as real as it gets!

A scatterplot (Fig. 1) visually depicts this strong correlation, showcasing a trend that's as undeniable as the North Star. This unexpected connection between cartographers and carbon footprint levels is a true "chart-topper" in the realm of environmental research!

Overall, our findings have unearthed a fascinating relationship that not only defies conventional wisdom but also offers a new perspective on the interconnectedness of seemingly disparate elements. It's like discovering a hidden map within a blank parchment – these results have truly charted a new course for environmental analysis!

The implications of this research stretch further than the eye can map, offering a fresh outlook on the potential influences of geographic information on global environmental decisions. Who would've thought that the scientific study of maps could cast such a wide net of influence? It's enough to make us believe in the power of "carto-graphic" destiny!

In conclusion, our research has illuminated an unexpected correlation between the number of cartographers in New Hampshire and fossil fuel use in Saint Vincent and the Grenadines, paving the way for further exploration of the intricate links between cartography and environmental choices. As we navigate uncharted territories in the realm of environmental research, these findings serve as a guiding star, pointing us toward new dimensions of inquiry and discovery.

## 5. Discussion

Our investigation has revealed an astonishingly robust correlation between the number of cartographers in New Hampshire

and fossil fuel use in Saint Vincent and the Grenadines. This connection is as unexpected as finding a treasure map in a bottle of rum – it's both intriguing and a little mysterious, isn't it? Our statistical analysis has lent credibility to the idea that the proliferation of cartographers in the Granite State may be exerting a tangible influence on the energy decisions of a distant island nation. It's almost like the maps themselves are whispering their secrets to the winds and guiding the fuel choices of Saint Vincent and the Grenadines. All we can say is, "map-tastic!"

Our findings align with the work of Smith et al., who hinted at the far-reaching implications of cartographic activities on global decisions. It's as if every stroke of the cartographer's pen in New Hampshire sparks a chain reaction that travels across the sea, shaping the energy landscape of Saint Vincent and the Grenadines. We owe it to them to be sure to include cartographers in all our future climate discussions, don't you think? After all, who knew that the fate of a tropical paradise could be intertwined with ink on paper!

The strength of our correlation coefficient and the statistical significance of our results reaffirm the seriousness of this unexpected connection. It's as if the data itself is telling us, "Don't brush this off – the relationship is as clear as 20/20 vision!" This discovery isn't just a blip on the radar; it's a seismic shift in how we perceive the potential reach of cartographic influence.

The r-squared value of 0.6365597 further supports the solidity of this association, confirming that approximately 64% of the variation in fossil fuel use can be attributed to the number of cartographers. It's as if these variables were destined to be connected, like a well-drawn map and a clear path home! And speaking of maps, the scatterplot visually illustrates this correlation, proving that this unexpected

relationship is no illusion – it's as palpable as the feeling of finding your way in a maze.

Our results may seem as improbable as navigating through a labyrinth with only a map and a flashlight, but they beckon us to rethink the scope of environmental influence. It's not every day that statistical analysis leads us down an unexplored path, but when it does, we must follow the evidence, even if it feels like a journey into uncharted territory. This discovery may just be the "X" that marks the spot in understanding the unseen ties between cartography and carbon footprints. After all, who would've thought that the humble craft of map-making could have such a global impact? It's like unearthing a treasure trove of environmental insights hidden in plain sight!

Overall, our unexpected yet compelling findings unveil a newfound dimension to the role of cartographers in shaping environmental decisions. It's as if the carts of the cartographers have not only mapped out topographic features but have also etched their influence on the energy maps of a distant land. These results have truly steered us in the direction of a new frontier, inviting further exploration of the intricate connections between the art of map-making and environmental choices. As we venture into uncharted territories in the realm of environmental research, this discovery serves as a compass guiding us toward a deeper understanding of the puzzling interplay between cartography and carbon footprints. And we have to say, it's a journey worth taking – who knows what other unexpected connections we might uncover along the way!

## 6. Conclusion

In conclusion, our findings illuminate an unexpected and robust correlation between the number of cartographers in New Hampshire and fossil fuel use in Saint

Vincent and the Grenadines. It's as if these map-makers are laying down a roadmap for environmental decisions in a faraway land! Who knew that sketching lines on paper could have such a profound impact on carbon footprints?

The statistical results we've uncovered are as solid as a bedrock and could make even a seasoned geographer do a double-take! With a correlation coefficient of 0.7978469 and an r-squared value of 0.6365597, this connection between cartographers and carbon footprints is as clear as a well-drawn map line. It's almost like the statistical universe decided to map out this unexpected pathway for environmental influence!

Plus, with a p-value less than 0.01, our results are a rare gem hidden within a mountain of statistical data – this correlation is as real as it gets! The scatterplot visually depicting this strong correlation is a "chart-topper" in the realm of environmental research – a visual testament to the unexpected intertwining of cartographers and carbon footprints.

The implications of our research extend beyond what the eye can map, offering a fresh outlook on the potential influences of geographic information on global environmental decisions. It's enough to make us believe in the power of "cartographic" destiny!

In the spirit of all good map-related jokes, we confidently assert that there is no need for further research in this area. We've already rummaged through enough data to rival any buried treasure, and these findings are the "X" that marks the spot of unexpected environmental influence. It's time to sail off into new academic seas and unearth other uncharted correlations waiting to be discovered!

With our findings exceeding all expectations and painting an unexpected picture of intercontinental influence, it's safe to say that we're indeed navigating uncharted waters in the field of environmental research. It seems that while a "map-a-day" may keep the disorientation away, it could also have unsuspected implications for global carbon emissions. As we set out to share our discoveries, we hope this research sparks conversations in both the realms of cartography and climate action. After all, who knew that the secret to reducing carbon emissions might just lie in the humble hands of those drawing lines on a map?

So, as you delve into the depths of our research, we invite you to join us on this voyage of discovery, as we uncover the enigmatic links between the underappreciated heroes of cartography and the environmental landscape of Saint Vincent and the Grenadines. For, in the words of a wise cartographer, "To learn, we need to be willing to not-know!" And in the spirit of learning, let's set sail on this map-tastic journey together!