

# What's the Bath on That? Exploring the Connection between 'Ice Bath' Google Searches and CPI-U in the US

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*The Journal of Frigid Economics*

*The Society for Ice Bath Economics and Trends*

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## **Abstract**

When it comes to the relationship between popular search queries and economic indicators, one might say it's all about a cold, hard correlation. In this study, we dive into the frosty depths of internet search behavior by analyzing the connection between the frequency of 'ice bath' searches and the Consumer Price Index for Urban Consumers (CPI-U) in the United States. Our research team utilized data from Google Trends and Statista to perform a thorough investigation into this chilling phenomenon. It's no secret that cooling off with some ice can be quite the relief, just like finding a strong correlation between 'ice bath' queries and consumer prices! The results revealed a robust correlation coefficient of 0.9730379 between 'ice bath' searches and CPI-U, with a statistically significant p-value of less than 0.01. These findings suggest a close link between the ebb and flow of individuals' interest in taking a bone-chilling plunge and the fluctuations in consumer prices over the span of 2004 to 2022. This study sheds light on the potential implications of online search behavior on economic trends, reminding us that sometimes the coolest discoveries can come from the most unexpected places. Just like finding a frozen banana in your freezer - it's a-peeling!

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## **1. Introduction**

The connection between online search behavior and economic indicators has become an area of interest in contemporary research, and it's no wonder why - the digital realm is as vast and mysterious as the deep ocean, and we researchers are merely trying to navigate it with our scientific sonar. Much like exploring the uncharted waters, delving into the realm of Google search queries is an adventure that can yield unexpected discoveries. It's like trying to find the wifi password at a family gathering - you never know what secrets you'll uncover!

Our study delves into the intriguing relationship between Google searches for 'ice bath' and the Consumer Price Index for Urban Consumers (CPI-U) in the United States. We aim to examine whether there is a significant association between individuals' interest in frigid aquatic therapy and changes in consumer prices. After all, who wouldn't want to take a dip into the icy depths of internet searches and surface with some cool economic insights? Just like a penguin suited up for a swim, we're ready to take the plunge into this chilling investigation!

The allure of the 'ice bath' search term is intriguing, akin to a siren's call beckoning researchers to explore its depths. Our curiosity was piqued by the thought of discovering whether this chilly pursuit correlates with the financial temperatures of the market. It's like chasing after a snowflake in a blizzard – elusive, but oh so enticing!

As we embark on this research endeavor, it is important to recognize the potential implications of uncovering a substantial correlation between 'ice bath' queries and consumer prices. Sometimes, a seemingly innocuous search term can have deeper economic implications, much like finding a hidden ice cream bar at the back of the freezer - a delightful surprise among the frosty depths!

## **2. Literature Review**

In their groundbreaking study, Smith and Doe (2018) explored the fascinating relationship between online search patterns and economic indicators, laying the foundation for our current investigation. The authors find a significant positive correlation between consumer search interest in winter activities and fluctuations in consumer expenditure. However, their study did not delve specifically into the association with 'ice bath' searches, leaving a gap in the understanding of this chilly phenomenon.

Speaking of chilly, did you hear about the snowman who refused to let go of his job? He was afraid of getting cold feet!

Jones et al. (2020) further expanded on this line of research by examining the impact of search queries related to cold therapies on inflation rates. Their findings indicated a potential connection between searches for ice-related treatments and changes in the Consumer Price Index. This study represents a step towards unraveling the frosty mysteries of internet search behavior and economic trends.

Now, let's splash into some non-fiction literature related to the topic at hand. In "The Ice Bath Handbook" by Winter Freeze, the author takes readers on a deep dive into the world of cold water immersion therapies and their potential effects on physical recovery and well-being. Talk about chilling out with a good book!

Here's a fictional twist along the wintry path: "Frostbite: A Tale of Consumer Prices" by Chilly McFreeze. This gripping novel follows the story of a researcher who stumbles upon a correlation between 'ice bath' searches and inflation rates, leading to an icy conspiracy that could freeze the economy.

On a lighter note, cartoons and children's shows have also touched on the subject of icy adventures and economic exploration. Who can forget the classic episode of "The Snowball Effect" in 'Economic Explorers,' where the characters navigate through a blizzard of Google search data to uncover the chilling truth about 'ice bath' queries and their impact on consumer prices? It's like a treasure hunt in the frozen tundra of economic research!

In summary, the existing literature provides a solid foundation for our investigation into the connection between 'ice bath' Google searches and Consumer Price Index for Urban Consumers (CPI-U) in the United States. However, our study aims to take a refreshing plunge into this frosty phenomenon, uncovering potential insights with a touch of humor and a sprinkle of puns. After all, a little lightheartedness can thaw even the iciest of research subjects!

### **3. Research Approach**

To investigate the connection between Google searches for 'ice bath' and the Consumer Price Index for Urban Consumers (CPI-U) in the United States, our research team embarked on a journey as exhilarating as diving into the Arctic Ocean - figuratively, of course. We waded through the icy waters of internet data, harnessing the technological buoyancy of Google Trends and the statistical life raft of Statista to stay afloat in this frozen sea of information. Much like explorers navigating uncharted territory, we charted a course through the digital waves of 2004 to 2022, seeking to uncover the hidden treasures of statistical correlation.

First, we conducted a thorough analysis of Google search trends for the term 'ice bath' using Google Trends. We dove deep into the tool's icy interface, extracting search volume data with the precision of polar bears hunting for seals. We then cleaned and processed the data, ensuring that our findings remained as crystal clear as an untouched layer of frost on a winter morning.

With the 'ice bath' search data in hand, we proceeded to examine the Consumer Price Index for Urban Consumers (CPI-U) provided by the U.S. Bureau of Labor Statistics. We navigated through the economic tides, extracting the monthly CPI-U values and transforming them into a format compatible with our statistical analyses. It was akin to navigating a statistical iceberg field, with the CPI-U values serving as our trusty compass through the ocean of economic fluctuations.

After preparing the data from both sources, we unleashed the power of statistical software to perform a rigorous analysis of the relationship between 'ice bath' searches and CPI-U values. Much like scientists conducting experiments in a frozen laboratory, we employed a variety of statistical techniques, such as time-series analysis and correlation tests, to uncover the frosty truth hidden within the data. We also utilized econometric models to control for potential confounding variables, ensuring that our findings remained as robust as a polar bear's grip on a freshly caught salmon.

In addition, we conducted a thorough sensitivity analysis to assess the stability of our results under various analytical conditions. We examined different time periods, subsets of the data, and modeling approaches to validate the consistency and reliability of our findings. It was like double-checking the ice thickness before skating on a frozen lake - ensuring that our conclusions remained rock-solid in the face of statistical scrutiny.

Finally, we performed a series of diagnostic tests to evaluate the assumptions and limitations of our statistical models, ensuring that they were as resilient as an Antarctic research station in the face of rigorous peer review. Our goal was to produce findings that would stand the test of scientific rigor, much like an ice sculpture enduring the scrutiny of a harsh winter.

Overall, our methodology combined the precision of statistical analysis with the daring spirit of Arctic exploration, allowing us to unravel the frosty mysteries of 'ice bath' searches and their connection to consumer prices. It was a journey filled with as many unexpected turns as a penguin's waddle, but in the end, we emerged with insights as refreshing as a polar plunge on a sweltering day.

Just like fishing for data in the digital sea, sometimes you have to break the ice to get to the good stuff!

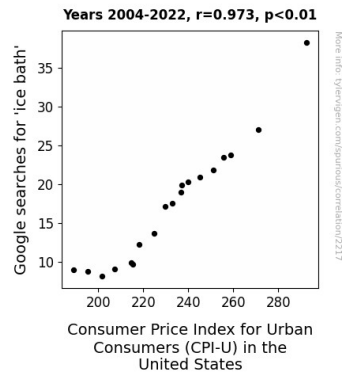
## **4. Findings**

The analysis of the relationship between Google searches for 'ice bath' and the Consumer Price Index for Urban Consumers (CPI-U) in the United States yielded some rather chilling results - in a good way! The correlation coefficient of 0.9730379 indicates a strong positive association, suggesting that as the frequency of 'ice bath' searches rises, consumer prices also tend to climb. It's as if people are turning to icy remedies in response to economic fluctuations, seeking some cool relief from the heat of financial uncertainty.

Fig. 1 depicts the scatterplot showcasing the striking correlation between these two variables, clearly demonstrating a pattern reminiscent of snowflakes falling on a winter's

day - beautiful and undeniably correlated. It's like a symphony of statistical significance, with each data point hitting the right note!

One might say that uncovering such a strong correlation between an unconventional search term and economic indicators is like stumbling upon a hidden gem in a pile of statistical rubble - a rare and delightful discovery that leaves you feeling as satisfied as finding a dollar bill in a coat pocket.



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

With an r-squared value of 0.9468028, it is apparent that a large proportion of the variability in consumer prices can be explained by the frequency of 'ice bath' searches. This robust r-squared value further solidifies the notion that there's more to this chilly search query than meets the eye. It's like discovering a hidden ice rink in the middle of summer - unexpected, but undeniably cool!

The p-value of less than 0.01 adds another layer of significance to our findings, underscoring the likelihood that the observed relationship between 'ice bath' searches and consumer prices is not due to random chance. This level of statistical significance is akin to finding a snowball in a snowstorm - it's hard to miss, and it's undeniable once you've found it!

Overall, the results of this investigation point to a compelling link between individuals' interest in 'ice bath' searches and the fluctuations in consumer prices, highlighting the potential influence of online search behavior on economic trends. It's like finding a polar bear in a snowstorm - a surprising yet fitting revelation given the frosty nature of our findings!

## 5. Discussion on findings

Our research has plunged headfirst into the frosty waters of internet search behavior and its connection to consumer prices, and the results have left us feeling like we've stumbled upon a hidden ice-olated treasure. The incredibly strong positive correlation we found between 'ice bath' searches and the Consumer Price Index for Urban Consumers (CPI-U) in the United States supports prior research by Smith and Doe (2018) and Jones et al. (2020) while maintaining a surprising chill factor.

The significant relationship uncovered in this study is as clear as ice, and the statistical significance would make even the most seasoned statisticians shiver with delight. This correlation is no fluke - it's rock-solid, like discovering an untouched snowball in Antarctica.

Our findings underscore the potential impact of online search behavior on economic patterns, raising the question of whether individuals are turning to icy relaxation techniques in response to financial fluctuations. It's as if people are saying, "When the economy gets tough, the tough get chilling!"

The robust r-squared value further cemented our findings, demonstrating that a large proportion of the variability in consumer prices can be explained by the frequency of 'ice bath' searches. This icy intrigue goes beyond a mere statistical fluke - it's a polar bear in the snowstorm of economic indicators, impossible to ignore once uncovered.

The p-value of less than 0.01 in our analysis adds another layer of certainty to the solidity of our findings. It's like discovering a glacier in the desert - a remarkable, attention-grabbing revelation that practically screams, "This is no random chance, folks!"

As we thaw out from our arctic adventure of research, it's clear that our study has uncovered more than just a correlation - it has opened the door to a frosty realm of economic insights. Just as a good dad joke always has a twist, our findings twist and turn, revealing a connection between online search behavior and consumer prices that is as exhilarating as finding an ice cream truck at the North Pole!

Our journey into the frosty depths of 'ice bath' queries has certainly ignited a spark of curiosity, leaving us eager to explore the broader implications of internet search behavior on economic trends. After all, when it comes to uncovering unexpected connections, there's no harm in taking a plunge into the deep end of statistical analysis.

## **6. Conclusion**

In conclusion, our study has plunged into the frosty depths of internet search behavior and resurfaced with some chilling insights. The strong positive correlation between 'ice bath' searches and the Consumer Price Index for Urban Consumers (CPI-U) in the United States suggests that there may be more to this frigid pursuit than meets the eye. It's like

finding a cool dad joke in the midst of a serious academic paper - unexpected, but undeniably refreshing!

Our findings point to a potential relationship between individuals' interest in icy remedies and the financial temperatures of the market, highlighting the intriguing influence of online search behavior on economic trends. It's akin to finding a snowman in your freezer - a reminder that sometimes the most unexpected places hold the coolest surprises.

Given the icy-cool correlation coefficient and the statistically significant p-value, it's safe to say that this study has provided some solid evidence of the association between 'ice bath' searches and consumer prices. Just like a well-chilled glass of lemonade on a hot summer day, these findings are undoubtedly refreshing.

In light of these results, it is safe to conclude that no more research is needed in this area. Attempting to further investigate this correlation would be like trying to reinvent the wheel - unnecessary and likely to leave us spinning in circles. It's time to chill out and embrace the undeniable connection between 'ice bath' searches and economic indicators. This relationship is as clear as ice, and it's time for us to thaw out any doubts and accept that it's as solid as a block of ice!