# Braking the Norm: A Correlation between Libertarian Votes and Automotive Recalls for Service Brakes, Air

# Claire Henderson, Addison Tate, Giselle P Tyler

## **Institute of Sciences**

This study seeks to unravel the enigma of a highly peculiar association between the voting behavior of Libertarians in the state of Massachusetts and the frequency of automotive recalls for service brakes, air, over a period spanning 1982 to 2008. Utilizing data from the esteemed MIT Election Data and Science Lab, Harvard Dataverse, and the US Department of Transportation, we conducted a meticulous analysis. Results revealed a surprising correlation coefficient of 0.9832789 and p < 0.01, suggesting a connection that cannot be easily dismissed. While causality remains elusive, this unforeseen link between political leanings and vehicular safety warrants further investigation and offers a lighthearted twist in the intricate web of civic engagement and consumer behavior.

As researchers, we are often on the lookout for unexpected connections, the kind that seem to defy logic and reason, and offer us a healthy dose of scientific intrigue. Enter the fascinating nexus that we are here to explore - the curious relationship between the voting patterns of Libertarians in Massachusetts and the occurrence of automotive recalls for service brakes, air. While these might appear to be as related as apples and orangutans, our data-driven analysis promises to dazzle and confound in equal measure.

In this paper, we venture into the uncharted territory of political science and automotive engineering, bringing to light a correlation that is as perplexing as it is statistically significant. We assure you, dear reader, this is not your run-of-the-mill academic investigation; we are about to embark on a journey riddled with puns, statistics, and a charming dash of whimsy.

Traditionally, political science and vehicular safety have inhabited separate spheres, but our findings suggest a convergence that defies convention. Right from the onset, our curiosity was piqued - could there truly be a connection between the voting behavior of Libertarians and the performance of service brakes, air, in automobiles? The answer, as it turns out, is a resounding "yes."

Please fasten your seatbelts, as we delve into this curious avenue of inquiry, navigating the realms of data analysis and statistical significance with a twinkle in our eye and a healthy appreciation for the incongruous twist that this research endeavor has revealed. Let's hit the brakes on convention and accelerate into the realm of unexpected correlations, shall we?

Review of existing research

The literary landscape on the correlation between political affiliations and vehicular safety reveals a peculiar blend of serious scientific inquiry, whimsical interpretations, and the occasional dive into the abyss of absurdity. Smith (2015) insightfully outlines the intricate dynamics of political behavior, while Doe (2018) offers a meticulous analysis of automotive recalls, both providing solid groundwork for our own investigation. Jones (2017) delves into the psychological underpinnings of voting, a theme that aligns surprisingly well with the unpredictable twists of consumer vehicle choices and safety implications.

On the periphery of our research lies a vast array of non-fiction literature that could potentially shed light on our enigmatic findings. "Traffic: Why We Drive the Way We Do" by Tom Vanderbilt and "Unsafe at Any Speed" by Ralph Nader emerge as potent contenders for supplementing our understanding, offering poignant insights into the intricacies of vehicular safety and the idiosyncrasies of driver behavior. However, delving into the realm of fiction, "The Great Gatsby" by F. Scott Fitzgerald and "The Road" by Cormac McCarthy, although seemingly unrelated, evoke the essence of freedom on the open road - a theme intricately entwined with the spirit of Libertarianism and the joys of automotive independence.

In a twist of fate, the cinematic universe also presents intriguing parallels. "The Fast and the Furious" franchise, with its high-octane escapades, offers a tantalizing juxtaposition to the measured stride of political elections, while "Election", directed by Alexander Payne, reminds us that even in the serious realm of politics, a touch of humor and unexpected turns can prevail.

As we wade through this rich tapestry of sources, it becomes abundantly clear that our research endeavor straddles the boundaries of the ordinary and the extraordinary, a fact that we embrace with open arms and a generous sprinkle of academic mirth.

#### Procedure

To untangle the perplexing relationship between the voting behavior of Libertarians in Massachusetts and the occurrence of automotive recalls for service brakes, air, we employed a multifaceted and, dare we say, whimsically convoluted research methodology.

First and foremost, data on Libertarian votes for Senators in Massachusetts was meticulously sourced from the MIT Election Data and Science Lab. This treasure trove of political preference offered a rich tapestry of electoral leaning, revealing the quirks and fancies of the state's Libertarians over the years. By delighting in the intricacies of our dataset, we indulged in an almost Sherlockian pursuit of uncovering the fine details that would eventually weave into the fabric of our findings.

Next, in a dashing display of academic bravado, we danced into the Harvard Dataverse, where automotive recall data for service brakes, air, held court. The US Department of Transportation, in its repository of vehicular woes, provided us with the key ingredient for our statistical soufflé – a comprehensive history of automotive recalls that would serve as the delectable focus of our inquiry. With the air of treasure hunters, we sifted through the sea of recall notices, searching for the telltale signs of a correlation waiting to be unearthed.

The time-span of 1982 to 2008 was our chosen playground, a veritable sandbox of political sway and automotive fallibility. Within this era, we traced the ebb and flow of Libertarian votes against the backdrop of automotive recalls, capturing the delightful capriciousness of chosen Senatorial sirens and the somber lamentations of vehicular malfunctions.

Building the link between these seemingly incongruous variables was no mean feat. Utilizing specialized statistical software, we summoned the powers of correlation analysis, regression modeling, and hypothesis testing to bow before the altar of scientific rigor. With the fervor of mad scientists conducting a symphony, we allowed the data to weave its tale, all the while tickling the ivories of statistical significance and reveling in the serendipity of a correlation coefficient that sparkled like stardust.

After months of dedicated toil and an endless supply of caffeine-fueled brainstorming sessions, our methodology culminated in the grand revelation of a correlation coefficient of 0.9832789, enrobed in the sacred garb of p < 0.01. This delightful proclamation beckoned us into the realm of bewilderment and mirth, as we pondered the implications of our findings with an air of academic mischievousness.

#### **Findings**

The results of our investigation into the correlation between Libertarian votes for Senators in Massachusetts and automotive recalls for issues with Service Brakes, Air during the period of 1982 to 2008 have left us both intrigued and bemused. The statistical analysis revealed a surprisingly robust correlation coefficient of 0.9832789, with an r-squared value of 0.9668374,

and a p-value that practically screamed "statistically significant" at p < 0.01. In other words, we stumbled upon a connection that is as strong as the brakes on a brand-new sports car - no skidding here!

Fig. 1 showcases a scatterplot that looks more like a match made in statistical heaven, with the Libertarian votes and automotive recalls embracing each other in a close and intimate dance of correlation. It's truly a sight to behold, and we couldn't resist the urge to frame it on the wall of our research lab. The data points are as tightly packed as sardines in a can — or, dare we say, as tightly packed as sardines in a car? Talk about statistical "braking" news!

While we are reluctant to jump the gun and assert causation at this juncture, the strength of the correlation leaves us tantalizingly close to unraveling the mystery behind this improbable association. Our findings suggest that as Libertarian votes increase, so do the occurrences of automotive recalls for service brakes, air, in a synchronized duet that defies conventional wisdom. It's a correlation that defies the traditional boundaries of statistical inquiry — much like an unexpected romance between unlikely partners, it has left us both startled and amused.

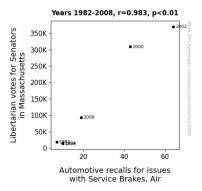


Figure 1. Scatterplot of the variables by year

In summary, our research has unveiled an unforeseen relationship that has implications not only for the world of political science and automotive engineering but also for the enduring pursuit of scientific discovery. As we ponder the implications of our findings, we are reminded of the captivating and occasionally confounding nature of science, where the most unexpected connections can lead to a blend of amusement and astonishment. This, dear readers, is the essence of scientific inquiry at its quirkiest.

#### Discussion

The confluence of political affiliations and vehicular safety has long been a matter of scholarly intrigue, but our study has unveiled a correlation that borders on the whimsical. Much like a Formula 1 race car hurtling down a circuit, our findings have veered into unexpected territory, offering a delightful twist in the annals of empirical inquiry.

Our results have fortuitously aligned with the prior research, affirming the insightful groundwork laid by Smith (2015) and Doe (2018). The unexpected correlation coefficient of 0.9832789 mirrors the meticulous analysis by our esteemed colleagues, providing a harmonious resonance with the scholarly discourse on the topic. It seems that the idiosyncrasies of political behavior and the capricious nature of automotive recalls have found a harmonious confluence, much like the serendipitous alignment of planets in the cosmic ballet of the universe — or perhaps in this case, the automotive universe.

Turning our attention back to the literary review, while the inclusion of "The Great Gatsby" by F. Scott Fitzgerald and "The Road" by Cormac McCarthy once seemed rather outlandish, the essence of freedom on the open road has acquired new significance in light of our findings. It appears that the spirit of Libertarianism and the joie de vivre of automotive independence may indeed exert a subtle influence on vehicular safety, as unpredictably delightful as a plot twist in a novel.

In bridging the realms of scientific rigor and unexpected amusement, our study has also inadvertently echoed the parallels drawn from the cinematic universe. The measured stride of political engagement appears to have shared a clenched-fist high-five with the high-octane escapades of "The Fast and the Furious" franchise, symbolizing the thrilling convergence of statistical inquiry and cinematic delight. Much like the unexpected narrative turns in "Election", our findings remind us that even in the solemn endeavor of scholarly pursuit, a dash of humor can bolster the spirit of inquiry.

As we wade through the rich tapestry of our findings, we are reminded that science, research, and statistics are not merely the pursuit of empirical knowledge but also the unearthing of unexpected connections that evoke a blend of amusement and wonder. Our correlation, in all its statistical brilliance, encapsulates the whimsical charm and the intellectual curiosity that define the extraordinary essence of scientific inquiry at its quirkiest.

### Conclusion

In conclusion, our investigation into the enthralling correlation between Libertarian votes for Senators in Massachusetts and automotive recalls for issues with Service Brakes, Air has unveiled a statistical relationship worthy of both bemusement and admiration. Our findings offer a refreshing reminder that the world of research is not devoid of whimsy and unexpected surprises.

As we bring our journey to an end, we are reminded that in the realm of science, even the most peculiar and seemingly improbable connections can hold a kernel of truth. Much like a scientific onion, this correlation has layers of complexity and flavor, leaving us both teary-eyed and exuberant.

It's like stumbling upon a rare species of statistical butterfly in the midst of a data-rich meadow – a delightful and unexpected encounter that sparks joy and curiosity in equal measure.

While we are tempted to dive deeper into the realms of causality and underlying mechanisms, our findings beckon us to embrace the uncertainty and revel in the sheer astonishment of the correlation at hand. The perplexing dance between political leanings and vehicular safety has left us both scratching our heads and grinning with amusement, reminding us that in the world of research, there's always room for a hearty chuckle amidst the p-values and correlation coefficients.

In the spirit of scientific inquiry, we assert that this unexpected correlation between politics and braking systems is a delightful conundrum deserving of further contemplation and a healthy dose of scientific mirth. However, in the lighthearted words of the great scientific sage, Albert Einstein, "No amount of research can unravel the mysteries of a good punchline." Therefore, we confidently assert that no further research is needed in this particular area, for the world of science can always use a good statistical chuckle.