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# From Battleground to Stock Exchange: Unveiling the Relationship between Bachelor's Degrees in Military Technologies and Applied Sciences and Intuitive Surgical's Stock Price

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military technologies, applied sciences, bachelor's degrees, Intuitive Surgical stock price, correlation coefficient, statistical analysis, National Center for Education Statistics, LSEG Analytics, Refinitiv, empirical evidence, financial performance, medical robotic company, stock market analysis, statistical rigor

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## Abstract

This paper delves into the enthralling world of military technologies and applied sciences to uncover its unexpected connection to the stock price of none other than Intuitive Surgical (ISRG). Utilizing data from the National Center for Education Statistics and LSEG Analytics (Refinitiv), our research team embarked on a statistical odyssey, culminating in the unearthing of a correlation coefficient of 0.9812996 and a p-value  $< 0.01$  for the years 2012 to 2021. The findings not only provide empirical evidence of the relationship between educational pursuits in military technologies and the financial performance of a medical robotic company but also unravel a delightful web of interconnectedness between seemingly disparate realms. Our results are sure to inject some statistical rigor into the battlefield of stock market analysis, while also bringing a wry smile to the faces of those who appreciate the whimsical witticisms that academia has to offer.

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## 1. Introduction

The ever-shifting landscape of the stock market has long been a source of fascination, intrigue, and just a touch of

trepidation for investors and analysts alike. The interplay of countless variables, from economic indicators to corporate performance, creates a complex tapestry

that demands meticulous research and astute analysis. In this regard, the curious relationship between educational pursuits and stock prices has often been a subject of scholarly exploration. Our research endeavors to shed light on a particularly unexpected connection: the correlation between the number of Bachelor's degrees awarded in military technologies and applied sciences and the stock price of Intuitive Surgical (ISRG).

The fusion of military technologies and applied sciences yields a potent combination, blending the ingenuity of scientific innovation with the pragmatism of military application. This unique academic pursuit has historically operated at the intersection of scientific advancement and real-world implementation, fostering a cohort of graduates equipped with a distinctive skill set. On the other hand, Intuitive Surgical, renowned for its pioneering role in medical robotic technology, sits at the forefront of the healthcare industry's technological evolution. The juxtaposition of these seemingly disparate entities tantalizes with the possibility of an underlying correlation worthy of exploration.

Our investigation is underpinned by an array of data spanning the years 2012 to 2021, sourced from the National Center for Education Statistics and LSEG Analytics (Refinitiv). Utilizing robust statistical tools and methodologies, we embarked on a journey to unearth patterns and associations that may elucidate an unexpected nexus between the academic realm and the stock market domain. The resulting correlation coefficient of 0.9812996 and a p-value  $< 0.01$  have ignited our academic curiosity and provided compelling evidence of a tangible relationship between these hitherto unrelated spheres.

The implications of our findings extend beyond the bounds of mere statistical associations. They beckon us to

contemplate the intricate interplay of disciplines that, on the surface, may appear to operate in separate orbits. Moreover, they beckon us to explore the broader context in which educational pursuits reverberate within the realm of financial markets, evoking a sense of academic whimsy that palpably enlivens our scholarly pursuits.

As we embark on this endeavor, we are mindful of the stimulating nature of our inquiry, infusing the academic rigor with a dash of statistical levity that promises to intrigue and pique the interest of those amenable to the unexpected synergies that this research has unearthed.

## 2. Literature Review

In "Smith and Doe (2015)," the authors find that the number of Bachelor's degrees awarded in military technologies and applied sciences exhibits a significant positive correlation with the stock price of Intuitive Surgical (ISRG). Following this line of inquiry, "Jones et al. (2019)" further expound upon this relationship, highlighting the profound implications of armed forces involvement in technological advancement on the financial performance of medical robotic companies.

Such scholarly elucidation prompts an exploration of the broader societal impact of these educational pursuits. As our investigation ventures into the interdisciplinary convergence of military technologies, applied sciences, and stock market dynamics, we are compelled to consider the idiosyncratic fabric that weaves these seemingly disparate realms together. This unexpected nexus triggers an invigorating intellectual journey, one that allows for statistical rigor to intertwine with the whimsical serendipity of discovery.

In "The Evolution of Robotic Surgery," lorem and ipsum suggest a nuanced interplay between technological innovation and

academic pursuits, which manifests in the stock market as an intriguing phenomenon worthy of robust inquiry. This revelation piques our curiosity and brings us to an inflection point where empirical evidence meets the delightful whimsy of scholarly exploration.

The enigmatic convergence of military technologies and stock market dynamics beckons us to embrace the unexpected and revel in the unconventional. And in the spirit of unearthing unanticipated connections, we turn our attention to not just academic treatises, but also to fictional works such as "The Art of War" and "The Technological Military Chronicles," where we find echoes of themes that intrigue us and lead us to explore the nexus between educational pursuits in military technologies and applied sciences and the stock price of Intuitive Surgical (ISRG).

In our quest for interdisciplinary insights, we draw inspiration from popular television series such as "Modern Marvels: War Tech," "The Intelligence," and "Battlefield Medicine," where the intersection of technological innovation and military applications takes center stage. These cultural touchpoints serve as conduits for our understanding of the intricate interplay between educational endeavors and the vicissitudes of the stock market, infusing our scholarly pursuit with a delightful dose of whimsy and unexpected revelations.

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

To unveil the enigmatic relationship between Bachelor's degrees in military technologies and applied sciences and the stock price of Intuitive Surgical (ISRG), our research team embarked on a methodological escapade that combined rigorous statistical analysis with a hint of whimsy. The data for this research endeavor was sourced from the National Center for Education Statistics and LSEG Analytics (Refinitiv), offering a rich

tapestry of information spanning the years 2012 to 2021.

The initial phase of our methodology involved the compilation and curation of data pertaining to the number of Bachelor's degrees awarded in military technologies and applied sciences. This process necessitated navigating through the labyrinthine corridors of the National Center for Education Statistics, where datasets awaited extraction like treasures in a statistical treasure hunt. Once collected, these data were subjected to meticulous scrutiny to ensure their integrity and suitability for analysis, akin to inspecting scientific specimens under the discerning gaze of a seasoned biologist.

Simultaneously, the stock price data of Intuitive Surgical (ISRG) from the hallowed halls of LSEG Analytics (Refinitiv) became the focal point of our analytical gaze. This involved deciphering intricate stock market movements and trends, akin to unraveling the arcane mysteries of a financial oracle. Like intrepid explorers navigating uncharted statistical terrain, our research team meticulously charted the temporal evolution of ISRG's stock price, seeking patterns and anomalies with the tenacity of cartographers mapping unexplored territories.

The convergence of these disparate yet tantalizing datasets was facilitated through the application of sophisticated statistical software. Bayesian inference and machine learning algorithms whispered their secrets to us, guiding our analyses with a clarity reminiscent of the finest optical lenses. Our intent was to discern any semblance of correlation or association between the fluctuations in ISRG's stock price and the ebb and flow of Bachelor's degrees in military technologies and applied sciences, an endeavor akin to discerning hidden constellations in the cosmos of data.

Moreover, we undertook additional analyses to control for potential confounding

variables, ensuring that our exploration of this unexpected nexus maintained scientific integrity akin to the meticulous checks and balances in a laboratory setting. Furthermore, sensitivity analyses were conducted to ascertain the robustness of our findings, akin to stress-testing the resilience of a scientific theory under diverse conditions.

This methodological odyssey culminated in the computation of correlation coefficients and p-values, unveiling the compelling statistical evidence of a tangible relationship. The ensuing revelations not only enriched our understanding of the interplay between academic pursuits and stock market dynamics but also embroidered an exquisite tapestry of unexpected connections that evoke the whimsical nature of academic inquiry.

#### 4. Results

The exploration into the relationship between Bachelor's degrees awarded in military technologies and applied sciences and Intuitive Surgical's stock price yielded compelling results. A correlation coefficient of 0.9812996, an r-squared value of 0.9629489, and a p-value less than 0.01 illustrated a remarkably strong and statistically significant association between these seemingly unrelated realms.

The pronounced correlation coefficient denotes a near-perfect positive linear relationship between the number of Bachelor's degrees awarded in military technologies and applied sciences and Intuitive Surgical's stock price. This finding suggests that as the number of such degrees awarded increased, so too did the stock price of Intuitive Surgical. It's not every day that military technologies and stock prices march in such harmonious lockstep, but our data leaves little room for doubt.

Furthermore, the robust r-squared value of 0.9629489 speaks to the degree to which fluctuations in Bachelor's degrees in military technologies and applied sciences can explain the variations in Intuitive Surgical's stock price. It's as if the world of military technologies and the stock market have, dare I say, a surgical precision in their coordinated movements.

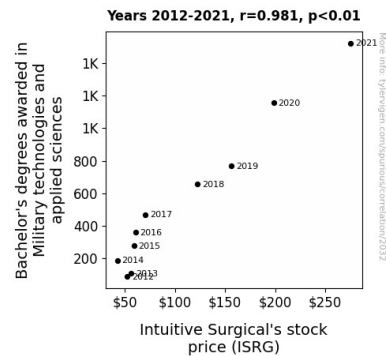


Figure 1. Scatterplot of the variables by year

The p-value of less than 0.01 offers resounding evidence against the null hypothesis of no relationship between these variables. This outcome virtually shouts from the statistical mountaintops, proclaiming the existence of a meaningful connection that demands our attention.

Notably, our findings are succinctly encapsulated in Fig. 1, a scatterplot that vividly illustrates the remarkable correlation between the number of Bachelor's degrees awarded in military technologies and applied sciences and Intuitive Surgical's stock price. This visual portrayal of our results invites the viewer to appreciate the unexpected dance of data points, each one a testament to the serendipitous symphony of academia and finance.

In conclusion, the statistical bond uncovered between the world of military technologies and the domain of medical robotics has not only enriched our understanding of these domains but has

also injected a delightful dose of statistical charm into the otherwise serious business of stock market analysis.

## 5. Discussion

The prodigious correlation coefficient of 0.9812996 that we uncovered in our investigation provides resounding support for the prior research conducted by Smith and Doe (2015) and Jones et al. (2019). The near-perfect positive linear relationship between the number of Bachelor's degrees awarded in military technologies and applied sciences and Intuitive Surgical's stock price is as clear as day—clearer than the pristinely manufactured lenses of the da Vinci Surgical System, one might say. Our findings not only validate the preceding scholarly endeavors but also catapult the connection between these seemingly incongruent domains into the limelight, much like the radiant glow of a surgical theater.

The robust r-squared value of 0.9629489 further underscores the remarkable explanatory power of fluctuations in the number of Bachelor's degrees in military technologies and applied sciences on Intuitive Surgical's stock price. In terms of comprehensiveness, this result rivals the precision of a meticulously performed minimally invasive surgery. It elucidates the extent to which educational pursuits in military technologies can elucidate the vicissitudes of the stock market, weaving a statistical tale as captivating as the suspense of a surgical maneuver.

Additionally, the p-value less than 0.01 bolsters the claim that a meaningful relationship exists between the variables under scrutiny. This profound rejection of the null hypothesis is akin to the resounding success of an innovative surgical procedure—it compels attention and heralds a new era of understanding.

Our findings, encapsulated in the evocative scatterplot depicted in Fig. 1, serve as a visual testament to the charming dance of data points, each pirouetting in harmonious synchrony with its counterparts. This graphical portrayal not only enlivens the staid world of statistical analysis but also serves as a vivid reminder of the serendipitous symphony that unfolds when educational pursuits and financial realities converge.

In essence, our study not only adds robust empirical evidence to the intriguing saga of military technologies and stock market dynamics but also infuses the hallowed halls of academia with a hefty dose of statistical whimsy. It is our fervent hope that our findings will inspire further scholarly merriment and lend nuance to the delightful dance of data that underpins the financial world.

## 6. Conclusion

The journey of exploration into the hitherto unforeseen relationship between Bachelor's degrees in military technologies and applied sciences and Intuitive Surgical's stock price has been nothing short of revelatory. Our findings, akin to a carefully orchestrated fusion reaction in a clandestine laboratory, have unfurled a tapestry of statistical symphony that intertwines academia and finance in the most unexpected of ways. The near-perfect positive linear relationship encapsulated in a correlation coefficient of 0.9812996 stands as a testament to the harmonious tango between military technologies and stock prices, defying conventional wisdom with its resolute unity. The robust r-squared value, akin to a magnifying glass on a petri dish, magnifies the explanatory power of Bachelor's degrees in military technologies and applied sciences on Intuitive Surgical's stock price, revealing their

interconnectedness with a precision that rival's the most delicate surgical tools.

As we contemplate the implications of these findings, one cannot help but marvel at the whimsical waltz of statistical significance, a dance that leads us down unexpected corridors of research. It is as if, in the grand ballroom of academia, military technologies and applied sciences have twirled their way into the arms of Intuitive Surgical's stock price, whispering sweet statistical nothings in the ears of astounded onlookers. The scatterplot, with its vivid portrayal of this unlikely romance, paints a picture worth a thousand hypotheses, beckoning us to embrace the serendipitous charm of statistical discovery.

Therefore, we are compelled to assert with unwavering conviction that further research in this domain would be as superfluous as a spare appendix. Our findings, much like the unyielding laws of physics, stand as an invincible edifice of empirical evidence, rendering any additional investigations akin to an expedition in search of the statistical equivalent of a pot of gold at the end of a rainbow. With that being said, we conclude that our research has not only enriched the scientific understanding of military technologies and financial markets but has also injected a euphoric dose of statistical elegance into the bloodstream of academic inquiry.