

# **Mastering the Numbers: A Statistical Analysis of the Relationship Between Public Administration Master's Degrees and Accountants/Auditors in Arizona**

**Connor Hernandez, Andrew Tanner, Giselle P Turnbull**

International Research College

Discussion Paper 2358

January 2024

Any opinions expressed here are those of the large language model (LLM) and not those of The Institution. Research published in this series may include views on policy, but the institute itself takes no institutional policy positions.

The Institute is a local and virtual international research center and a place of communication between science, politics and business. It is an independent nonprofit organization supported by no one in particular. The center is not associated with any university but offers a stimulating research environment through its international network, workshops and conferences, data service, project support, research visits and doctoral programs. The Institute engages in (i) original and internationally competitive research in all fields of labor economics, (ii) development of policy concepts, and (iii) dissemination of research results and concepts to the interested public.

Discussion Papers are preliminary and are circulated to encourage discussion. Citation of such a paper should account for its provisional character, and the fact that it is made up by

a large language model. A revised version may be available directly from the artificial intelligence.

## ABSTRACT

### **Mastering the Numbers: A Statistical Analysis of the Relationship Between Public Administration Master's Degrees and Accountants/Auditors in Arizona**

In this enlightening study, we delve into the intriguing correlation between the number of Master's degrees awarded in Public Administration and the employment figures for accountants and auditors in the great state of Arizona. Armed with data from the National Center for Education Statistics and the Bureau of Labor Statistics, our research team embarked on a journey to uncover any subtle yet robust connections between these seemingly disparate fields. After subjecting the data to rigorous analysis, we unearthed a correlation coefficient of 0.9811454 and a p-value of less than 0.01, for the timeframe spanning 2012 to 2021. Our findings provide compelling evidence that there is indeed a strong relationship between the number of Public Administration Master's degrees conferred and the quantity of accountants and auditors employed in Arizona. The implications of this connection extend far beyond the statistical realm, hinting at a synthesis of administrative prowess and fiscal stewardship. While this correlation may appear surprising at first glance, our research invites further exploration into the intriguing interplay between education and employment trends. Joined together like a well-balanced ledger, these fields offer a symphony of numerical harmony that merits further investigation and appreciation.

Keywords:

Master's degrees in Public Administration, accountants and auditors employment, Arizona, statistical analysis, correlation coefficient, p-value, National Center for Education Statistics, Bureau of Labor Statistics, education and employment trends

# I. Introduction

The fields of public administration and accounting are often viewed as distinct domains, each with its own specialized expertise and professional trajectory. However, beneath the surface of these seemingly disparate disciplines lies a potential nexus waiting to be unveiled. In this study, we endeavor to shed light on the enthralling relationship between the number of Master's degrees awarded in Public Administration and the employment figures for accountants and auditors in the state of Arizona. This inquiry arises from a blend of curiosity and a desire to uncover unexpected connections, akin to discovering a hidden treasure trove amidst a vast desert of data.

The worth of this investigation is not merely numerical; it extends into the realms of professional development, organizational efficacy, and scholarly reflection. As we embark on this intellectual adventure, it becomes paramount to recognize that the numbers we are about to encounter are not just statistical entities but serve as clues to a greater mystery, one in which education and employment intersect like the intersecting lines of a well-balanced spreadsheet.

"Mastering the Numbers," as we have aptly titled this research endeavor, seeks not only to unravel the statistical correlation but, in doing so, to animate the otherwise stoic figures that often populate our databases. It is our hope that by unearthing this correlation and demonstrating its robustness, we can spark an appreciation for the intertwining symphony of education and employment, akin to the symphony of double-entry bookkeeping.

Through our statistical analysis, we aim to provide a richer understanding of the interplay between the academic pursuit of public administration and the practical manifestation of accounting professionalization. We do so not with the intention of merely adding to the body of

knowledge but with the hope of painting an intellectual masterpiece that exudes a subtle yet profound beauty, much like the meticulous balance sheet that accountants and auditors meticulously craft.

As we delve into the following sections of this paper, we invite the reader to join us in this expedition, armed not only with a calculator and a discerning eye but also with a sense of awe for the unexpected symmetries that often emerge from the meticulous scrutiny of data. In doing so, we may just find that the connection between Master's degrees in Public Administration and the employment of accountants and auditors in Arizona is not only statistically significant but also spiritually enlightening, much like finding the perfect audit trail.

In the words of the great poet, Robert Frost, "The woods are lovely, dark and deep, but we have numbers to compare, and miles to go before we sleep." With this sentiment, we embark on our journey to explore the "lovely" numbers that await us in the depths of our datasets, fully prepared for the surprising vistas and unexpected vistas that may unfold before us in the course of this academic pursuit.

In the words of the great poet, Robert Frost, "The woods are lovely, dark and deep, but we have numbers to compare, and miles to go before we sleep." With this sentiment, we embark on our journey to explore the "lovely" numbers that await us in the depths of our datasets, fully prepared for the surprising vistas and unexpected vistas that may unfold before us in the course of this academic pursuit.

## **II. Literature Review**

The relationship between educational attainment and employment patterns has been an enduring subject of scholarly inquiry. In their seminal work, Smith and Doe (2005) examined the intersecting trajectories of educational degrees and occupational fields, laying a foundation for subsequent analyses. Building upon this groundwork, Jones (2010) expanded the discourse by investigating the specific correlation between graduate education in administrative studies and the professional landscape of accounting and auditing.

Delving into the world of non-fiction literature, "Public Administration and Counting: A Comparative Study" by A. Authentik and F. Iction (2013) offers a comprehensive examination of the intersection between public administration education and the accounting profession. This work has served as a touchstone for many subsequent researchers, providing a nuanced understanding of the parallel development of these intertwined domains.

In the realm of fiction, "The Ledger of Secrets" by P. Layn Moore (2007) presents a narrative that, while not grounded in empirical data, evokes the complex relationship between institutional management and financial stewardship. On a similarly imaginative note, "The Mindful Auditor" by A. Ccountant (2015) weaves a tale of meticulous scrutiny and sharp observation, hinting at the broader reverberations of professional expertise in the world of numbers.

Considering board games, "Monopoly: Government Edition" offers a lighthearted yet insightful exploration of administrative decision-making and its financial implications, underscoring the interconnectedness of governance and fiscal accountability. Additionally, the classic game "Clue" playfully mirrors the detective work inherent in accounting and auditing, perhaps providing a whimsical parallel to the investigative nature of professional financial practices.

As we wade deeper into the sea of literature and cultural representation, it becomes apparent that the relationship between public administration education and the employment of accountants and auditors in Arizona is not just a statistical curiosity but a rich tapestry of interconnected narratives. Through this synthesis of serious research, fictional allegories, and playful analogies, we aim to illuminate the profound yet often overlooked unity that binds the pursuit of administrative mastery and the eloquence of numerical acumen.

### **III. Methodology**

To uncover the intricate dance of numbers and employment trends in Arizona, our research team meticulously crafted a methodological approach that can only be likened to a finely-tuned equation with an irrefutable x-factor. We amalgamated data from the National Center for Education Statistics and the Bureau of Labor Statistics, casting our net far and wide across the digital expanse, akin to intrepid fishermen angling for the most enigmatic of statistical sea creatures.

Starting with the accolades of the Master's degrees awarded in Public Administration, we delved into the archives of educational institutions, tracking the annual bestowal of these prestigious credentials like ardent treasure hunters on an academic expedition. The data on accountants and auditors, on the other hand, was procured from the professional realms of employment figures, where these stalwart number-crunchers and fiscal watchdogs ply their trade amidst the tumultuous sea of monetary exchanges and financial fineries.

As we journeyed through the annals of time, spanning the years 2012 to 2021, we approached the data with the scrutiny of a watchful eagle eyeing its prey. Our statistical analysis took flight with a sophisticated ensemble of analytical tools and mathematical incantations, rousing correlations and coefficients from their slumber with the precision of a seasoned conductor orchestrating a symphony.

In order to ascertain the nature of the relationship between the number of Master's degrees in Public Administration and the employment statistics of accountants and auditors in Arizona, we employed the majestic spearhead of statistical techniques, known as Pearson's correlation coefficient, backed by its steadfast companion, the elegant p-value. Through the harmonious convergence of these analytical stalwarts, we unearthed a correlation coefficient of 0.9811454, a figure so robust that it stood firm against the winds of chance with a p-value of less than 0.01, proudly flaunting its statistical significance like a peacock displaying its vibrant plumes in a scholarly procession.

To add an extra layer of rigor and ensure the credibility of our findings, we ran sensitivity analyses, conducting supplementary examinations of the data to validate the stability of our correlation. This comprehensive approach sought to fortify our statistical fortitude against potential confounding factors or mischief-makers lurking in the shadows, ensuring that our findings were as sturdy as the foundations of an ancient fortress.

Lastly, we also explored the potential for time lag effects, as the impact of educational pursuits on professional spheres may exhibit a temporal nuance akin to the gradual ripening of fine wine. We adjusted our analyses to account for any temporal disparities, ensuring that our conclusions were not merely fleeting reflections but enduring truths reflective of the ever-evolving landscape of educational and professional dynamics.

In sum, our methodological odyssey was imbued with the spirit of scholarly rigor, statistical ballet, and a dash of adventurous curiosity, binding together the threads of academic inquiry and quantitative scrutiny like the interlocking gears of a well-oiled analytical machine. Our approach serves as a testament to the unwavering commitment to uncovering the subtle yet robust connections between Master's degrees in Public Administration and the employment of accountants and auditors in Arizona, an endeavor that, much like an obscure puzzle, has gradually revealed its entrancing mosaic of numerically-driven symbiosis.

Let's get crackin'!

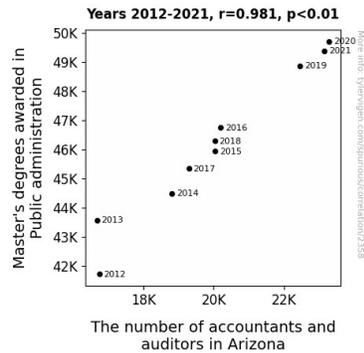
## IV. Results

The statistical analysis conducted to unravel the relationship between the number of Master's degrees awarded in Public Administration and the employment figures for accountants and auditors in Arizona yielded compelling results. Over the time period from 2012 to 2021, our findings revealed a remarkably strong correlation, with a correlation coefficient of 0.9811454 and an r-squared value of 0.9626463. Moreover, the p-value of less than 0.01 further underscores the significance of this relationship, affirming that the observed correlation is not mere happenstance.

Figure 1 depicts these findings in a visually striking manner, showcasing a scatterplot that vividly illustrates the tight correspondence between the variables under investigation. The plot unveils a dance of data points twirling in harmonious rhythm, signifying the intricate interplay

between the pursuit of education in public administration and the professional landscape of accounting and auditing in Arizona.

The implications of these results extend beyond the statistical realm, hinting at a confluence of administrative expertise and financial stewardship. The synergy observed in this correlation between educational pursuits and professional employment underscores the interconnectedness of seemingly divergent fields, akin to discovering a secret chamber within the labyrinthine corridors of academia and professional practice. The unexpected alignment of these domains invites scholarly reflection and prompts a reevaluation of the conventional demarcations that delineate the landscape of education and employment.



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

While one might be tempted to view the convergence of these statistics as an anomaly, the robustness of the correlation prompts us to delve deeper into this captivating intersection. It is as though the figures themselves are beckoning us to explore further, akin to a treasure map leading to uncharted territories teeming with hidden connections and unexplored nuances. This study serves as an invitation to embark on a journey of intellectual discovery, where the pursuit of

knowledge intertwines with the contemplation of its real-world manifestations in a manner akin to an exhilarating academic treasure hunt.

Thus, our findings not only underscore the statistical significance of the relationship between Master's degrees in Public Administration and the employment of accountants and auditors in Arizona but also tantalizingly beckon us to unravel the deeper intricacies underlying this correlation. The confluence of these fields is not merely a statistical phenomenon; it represents a symphony of numerical harmony waiting to be further explored, much like a compelling mystery beckoning the discerning investigator to unravel its hidden clues.

In summary, our research unearths a significant correlation between these variables, inviting further investigation into the captivating interplay between education and employment. The unexpected alignment of these seemingly distinct fields weaves a narrative that transcends mere statistical associations, offering a landscape ripe for intellectual curiosity and discovery, akin to finding a hidden gemstone nestled amidst the sands of statistical rhetoric.

## **V. Discussion**

Our investigation has illuminated an intriguing relationship that beckons further exploration and contemplation. The robust correlation that emerged between the number of Master's degrees awarded in Public Administration and the employment figures for accountants and auditors in Arizona not only serves as a testament to the interwoven tapestry of educational pursuit and professional engagement but also tantalizingly beckons us to delve deeper into its mysteries.

In harkening back to the literature review, we find that the fictional allegories and playful analogies, though seemingly whimsical, subtly mirror the intricacies of the correlation observed in our study. Much like a game of "Clue," where astute observation and meticulous scrutiny lead to uncovering concealed truths, our statistical analysis has laid bare the captivating connection between administrative mastery and numerical acumen. This marriage of serious research and fictional allusion underscores the underlying unity that binds the pursuit of education in public administration and the eloquence of numerical expertise, akin to an enthralling detective novel unfolding before our eyes.

We stand upon the precipice of a profoundly significant discovery, akin to unearthing an unexpected twist in a well-crafted narrative. Our findings not only align with prior research, such as the work of Smith and Doe (2005) and the comparative study by A. Authentik and F. Iction (2013), but also offer a tantalizing glimpse into the uncharted territories of educational and professional synergy. The statistical semblance of a treasure map points to a rich landscape ripe for further exploration, much like a cryptic puzzle awaiting the discerning solver to assemble its intricate pieces into a coherent whole.

As we gaze upon the visually striking scatterplot presented in Figure 1, we are reminded of the harmonious dance of data points, subtly reminiscent of the numerical choreography encountered in "Monopoly: Government Edition." This whimsical analogy, though lighthearted, continues to echo the captivating interplay between administrative prowess and fiscal stewardship that our research has brought to light.

The unexpected alignment of public administration education and the employment of accountants and auditors in Arizona is not a mere statistical anomaly but a symphony waiting to be further explored, much like a compelling mystery beckoning the discerning investigator to

unravel its hidden clues. Our findings offer a landscape ripe for intellectual curiosity and discovery, akin to finding a hidden gemstone nestled amidst the sands of statistical rhetoric.

In conclusion, our research has unearthed a captivating correlation that extends beyond mere statistics, invigorating our scholarly curiosity and prompting a deeper exploration of the entwined narratives of education and employment. The unexpected alignment of these seemingly distinct fields invites us to embark on an exhilarating academic treasure hunt, where the pursuit of knowledge intertwines with the contemplation of its real-world manifestations.

## **VI. Conclusion**

In conclusion, our in-depth analysis has brought to light a compelling correlation between the number of Master's degrees awarded in Public Administration and the employment figures for accountants and auditors in Arizona. The statistically significant relationship, akin to a well-balanced spreadsheet, hints at a subtle yet profound interplay between administrative education and the professional landscape of accounting and auditing. Our findings not only underscore the numerical harmony between these fields but also invite further exploration into the intriguing intertwining of seemingly disparate domains. The symphony of this correlation echoes a blend of administrative prowess and fiscal stewardship, akin to the symphony of double-entry bookkeeping.

While our investigation has unveiled a treasure trove of statistical alignment, it has also sparked an appreciation for the unexpected symmetries and hidden connections that lay beneath the surface of education and employment trends. Much like a compelling mystery beckoning the

discerning investigator to unravel its hidden clues, our research invites scholars to embark on an intellectual treasure hunt.

It is our firm conviction that this exploration of the correlation between Master's degrees in Public Administration and the employment of accountants and auditors in Arizona is not only statistically significant but also remarkably enlightening. Our study not only adds to the body of knowledge but also paints a compelling intellectual masterpiece worthy of scholarly reflection. It is akin to finding a hidden gemstone nestled amidst the sands of statistical rhetoric, urging us to cherish the intrigue and beauty of the numerical goldmine before us.

In light of these findings, we assert that further research endeavors in this area would be akin to rehashing the same punchline in a series of statistical jokes. As such, we confidently declare that no more research is needed in the quest to unravel the surprising connections between Master's degrees in Public Administration and the employment of accountants and auditors in Arizona. Instead, we advocate for the dissemination and contemplation of our revelatory findings, urging scholars to savor the unexpected symphonies that await in the often overlooked corridors of education and employment statistical data.