# Orlando's Popularity and West Virginia's Criminality: A Correlational Study

### Caleb Henderson, Addison Thompson, Giselle P Truman

Global Innovation University

Discussion Paper 3634

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.

**Discussion Paper 3634** 

January 2024

# ABSTRACT

### Orlando's Popularity and West Virginia's Criminality: A Correlational Study

The correlation between the popularity of the first name Orlando and the incidence of burglaries in West Virginia was examined in this research. Utilizing data from the US Social Security Administration and the FBI Criminal Justice Information Services, a thorough analysis was conducted covering the years 1985 to 2022. The results revealed a striking correlation coefficient of 0.8525528 and a statistically significant p-value of less than 0.01. It seems that there may be more to the name Orlando than meets the eye, as it appears to exhibit an unexpected association with criminal activity in the mountain state. While the popular saying goes that "Orlando steals your heart," our research suggests that it may also be associated with a higher likelihood of theft in certain regions. However, the causal mechanism underlying this correlation remains an intriguing area for future exploration. This study sheds light on the curious relationship between naming trends and criminal behavior, offering a fresh perspective on the factors influencing regional crime rates.

Keywords:

Orlando popularity, West Virginia criminality, correlation study, first name popularity, crime rates, naming trends, burglary incidence, US Social Security Administration data, FBI Criminal Justice Information Services, correlation coefficient, statistical significance, regional crime rates, naming trends and criminal behavior, Orlando association with criminal activity

## **I. Introduction**

The relationship between personal names and various aspects of life has been a topic of fascination for researchers and humorists alike. From the classic "Knock, knock. Who's there? Olive. Olive who? Olive(live) next door to you!" to the more serious inquiries into the socio-economic implications of names, there is no denying the impact of nomenclature on our perceptions and experiences.

In this vein, the curious case of the name Orlando and its potential connection to the incidence of burglaries in West Virginia has piqued our interest. It seems that beyond its association with theme parks and literary characters, the name Orlando may carry an unexpected statistic significance.

Much like a lock without a key, the correlation between the popularity of the name Orlando and the occurrence of burglaries in West Virginia appears to be a conundrum begging for exploration. As we delve into this enigma, we will inevitably encounter statistical complexities, methodological mysteries, and perhaps a pun or two along the way.

The interplay between seemingly unrelated variables such as names and crime rates invites us to ponder the intricacies of societal influences. It prompts us to question whether there is more than meets the eye in the dance of data and demographics.

With curiosity as our compass and a healthy dose of statistical skepticism as our guiding star, we embark on the journey to unravel the tangled web of Orlando's popularity and West Virginia's criminality. As we navigate through the labyrinth of correlation and causation, we remain mindful of the potential for serendipitous discoveries and unexpected revelations, much like finding a hidden treasure in a field of data.

Thus, we begin our quest to shed light on the curious relationship between the eponymous and the criminal, armed with graphs, charts, and a dash of whimsy. For as the research gods say, "May your p-values be small and your confidence intervals be tight."

### **II. Literature Review**

The theoretical framework for linking the popularity of a first name to criminal behavior finds its roots in sociological and psychological research. Smith et al. (2010) illuminate the influence of self-fulfilling prophecies and stereotype threat in shaping individuals' behavioral tendencies, suggesting that the social connotations of a given name may inadvertently influence one's actions. Additionally, Doe (2015) highlights the role of societal expectations and name-based biases in shaping individuals' self-perception and subsequent behavior, further underpinning the plausibility of a connection between nomenclature and criminality.

It appears that the name "Orlando" may have the potential to open doors - but perhaps not in the conventional sense. This unexpected association between a seemingly innocuous name and criminal activity prompts a re-examination of the societal influences that shape human behavior. It invites us to question whether the pattern in the data is a mere coincidence or a meaningful reflection of underlying psychological or sociological dynamics. While the divine "may your p-values be small and your confidence intervals be tight" provides a guiding light in our statistical endeavors, it cannot illuminate the humorous intricacies of potential causative mechanisms.

In "The Geography of Names" by M. H. DeMille, the exploration of regional naming trends intersects with the terrain of criminal behavior, offering a tantalizing glimpse into the unexpected interplay of geographic nomenclature and illicit activities. This intersection hints at the possibility of a hidden correlation between the eponymous and the criminal, echoing the very essence of our inquiry.

Moreover, in the fictional realm, works such as "The Burglar on the Name Trail" and "Orlando's Odyssey: A Crime Story" by Agatha Detective present narratives where the eponymous protagonist finds himself embroiled in criminal escapades, providing a whimsical parallel to our empirical exploration. The fictional representation of Orlando's entanglement in criminal mysteries serves as a lighthearted reflection of the unexpected correlation unearthed in our empirical investigation, compelling us to ponder the intricate layers of reality and fiction.

In a departure from conventional academic sources, an unconventional approach to literature review was necessitated. The exhaustive examination of the connection between the popularity of the first name Orlando and burglaries in West Virginia extended to the unlikely domains of cultural artifacts, including but not limited to, the obscure musings on CVS receipts. While this pursuit elicited quizzical looks and raised eyebrows from the research community, it yielded no discernible insights into the perplexing connection at hand, serving as a gentle reminder that not all paths lead to empirical enlightenment.

# **III. Methodology**

Data Collection:

The first step in unraveling the mystery of Orlando's name and its possible correlation with burglaries in West Virginia involved the collection of extensive data spanning the years 1985 to 2022. The US Social Security Administration and the FBI's Criminal Justice Information Services were the primary sources of information, providing a treasure trove of statistical gems to be mined in pursuit of our research objectives. Like prospectors panning for gold in a digital creek, our team meticulously gathered the nuggets of data necessary to illuminate the relationship between nomenclature and nefarious deeds.

#### Variable Selection:

With data in hand, the next task was to identify the pertinent variables for our analysis. The frequency of the first name Orlando within the population of West Virginia served as our measure of nomenclatural prominence. Concurrently, the incidence of burglaries in the state over the aforementioned time period constituted our indicator of criminal activity. This selection process brought to mind the timeless question: "Which comes first, the burglary or the Orlando?"

#### Statistical Analysis:

Employing robust statistical methods, we set out to scrutinize the relationship between the popularity of the name Orlando and the occurrence of burglaries in West Virginia. A correlation analysis was conducted to ascertain the strength and direction of the association, akin to investigating the pull of two celestial bodies in the vast universe of data. The correlation coefficient emerged as the celestial compass guiding our exploration, revealing the degree of alignment between Orlando's allure and the allure of illicit activities in the Mountain State.

Furthermore, a regression analysis was employed to ascertain the predictive power of the name Orlando on burglary rates, allowing us to peek into the crystal ball of statistical forecasting. Finally, a time-series analysis was conducted to discern any temporal patterns in the fluctuating fortunes of Orlando's popularity and the ebb and flow of the criminal tide in West Virginia. This endeavor was akin to deciphering the whims of an enigmatic oracle, hoping to glean insight into the curious dance of variables across the temporal landscape.

Data Verification and Validation:

To ensure the trustworthiness of our findings, extensive cross-validation and sensitivity analyses were performed, akin to a meticulous examination of a time-traveling apparatus to ascertain its reliability and consistency. This validation process sought to affirm the robustness of our results and mitigate the risk of spurious correlations masquerading as empirical truths. In the words of a timeless sage: "Trust, but verify."

#### Ethical Considerations:

As custodians of data and guardians of truth, ethical principles guided every phase of our research endeavor. Respect for privacy and confidentiality underscored our approach to handling sensitive personal information, akin to caretakers safeguarding the sanctity of individuals' statistical identities. In our pursuit of knowledge, we remained mindful of the imperative to uphold the dignity of those whose numerical footprints shaped our investigation, and thus proceeded with the utmost ethical mindfulness.

#### Limitations:

Although our analyses yielded intriguing insights, it is essential to acknowledge the limitations inherent in correlational research. Causation cannot be inferred from correlation alone, and lurking variables may yet reveal themselves like undercover agents in a statistical spy thriller, casting a shadow of uncertainty over our findings. Furthermore, regional and temporal variations

in naming trends and criminal behavior may introduce complexities requiring further exploration, much like untangling a Gordian knot of statistical conundrums.

### **IV. Results**

The analysis of the data spanning from 1985 to 2022 revealed a robust and intriguing correlation between the popularity of the first name Orlando and the incidence of burglaries in West Virginia. The correlation coefficient, calculated to be 0.8525528, demonstrates a remarkably strong positive relationship between these variables. This finding suggests that as the popularity of the name Orlando increased, so did the frequency of burglaries in the mountain state.

It seems that the name Orlando may not only be associated with magical adventures in theme parks, but also with a statistical quirk in the realm of criminal activity. Perhaps the phrase should be updated to "Orlando steals your heart and possibly your TV too."

The r-squared value of 0.7268463 further elucidates the strength of the association, indicating that approximately 72.7% of the variability in the incidence of burglaries in West Virginia can be explained by the popularity of the name Orlando. This indicates a high degree of predictability in the relationship, akin to being able to predict the likelihood of a good dad joke at a family gathering.



Figure 1. Scatterplot of the variables by year

Furthermore, the p-value of less than 0.01 underscores the statistical significance of the correlation, providing strong evidence against the null hypothesis. In other words, the likelihood of observing such a strong relationship between the popularity of the name Orlando and burglaries in West Virginia due to chance alone is exceedingly small, much like finding a needle in a haystack, or a burglar in a dark alley.

Figure 1 presents a scatterplot illustrating the compelling correlation between the popularity of the name Orlando and the incidence of burglaries in West Virginia. The data points form a distinct positive trend, visually reinforcing the strong statistical relationship observed in our analysis. This figure serves as a poignant reminder that sometimes, truth is indeed stranger than fiction, much like realizing that correlation does not necessarily imply causation, but it sure makes for an interesting conversation starter.

Overall, these results offer a thought-provoking insight into the interplay between naming trends and criminal behavior, prompting further contemplation of the intricate factors shaping regional crime rates. And as we unravel the mysteries of data with our trusty statistical toolkit, we cannot help but wonder, what's in a name? In the case of Orlando, apparently more than we might think.

## **V. Discussion**

The findings of the present study provide compelling support for the previously posited theoretical and empirical link between the popularity of the first name Orlando and the incidence of burglaries in West Virginia. The robust correlation coefficient of 0.8525528 aligns with the conceptual groundwork laid by Smith et al. (2010) and Doe (2015), suggesting that societal expectations and name-based biases may indeed shape behavioral tendencies, and in this case, potentially contribute to criminal activity. It seems that the name Orlando, known for its associations with adventure and charisma, might harbor a darker side, akin to a character in a suspenseful novel who turns out to have a hidden agenda – or should we say "hidden moniker"?

These findings also echo the unexpected parallels observed in works such as "The Burglar on the Name Trail," where the eponymous protagonist becomes ensnared in criminal escapades, offering a nod to the peculiar correlation uncovered in our investigation. The statistical robustness of the correlation further reinforces the plausibility of a meaningful connection, leaving us to ponder whether the rise in popularity of the name Orlando coincided with a surge in illicit escapades, perhaps hinting at a mysterious influence at play, much akin to a skilled illusionist who can make statistics dance to a lively tune.

The strength of the association, as evidenced by the high r-squared value of 0.7268463, illuminates the substantial predictability in the relationship, akin to foreseeing the likelihood of a well-timed dad joke at a family gathering. Additionally, the statistically significant p-value of less than 0.01 unequivocally dismisses the notion of a chance occurrence, highlighting the unmistakable nature of the correlation. It appears that the connection between the popularity of

the name Orlando and burglaries in West Virginia is not just a fluke, much like how a sudden downpour during a statistical conference isn't merely a coincidence, but rather a statistical anomaly – or in this case, a "rain of insights".

The scatterplot depicting the relationship between the popularity of the name Orlando and the incidence of burglaries in West Virginia serves as a visual testament to the compelling nature of the correlation, raising intriguing questions about the underlying dynamics at play. It is reminiscent of a puzzling mystery novel that beckons the reader to unravel its enigmatic clues, leaving us to ponder what unforeseen variables may be contributing to this curious relationship, much like sleuths piecing together evidence to uncover a hidden truth amidst the statistical noise. In summary, this study contributes to the growing body of evidence that suggests a deeper connection between naming trends and criminal behavior. The unexpected correlation between the popularity of the name Orlando and burglaries in West Virginia prompts a reevaluation of the factors influencing regional crime rates and invites further exploration into the nuanced interplay of nomenclature and societal constructs. As we delve deeper into the layers of this peculiar association, we are reminded that sometimes, statistical relationships can hold unexpected revelations and hints of humor – much like a cleverly crafted dad joke that catches one off guard and leaves a lasting impression.

### **VI.** Conclusion

In conclusion, the correlation between the popularity of the first name Orlando and the incidence of burglaries in West Virginia has unveiled a surprising statistical relationship. This finding has illuminated a unique dimension of societal dynamics, reminding us that even the most unexpected variables may be intertwined in the web of statistical association.

Linguistic and criminological scholars may find themselves pondering the implications of this correlation, musing on whether there is, in fact, something truly 'thefty' about the name Orlando. It seems that while "Orlando steals your heart," it may also have a knack for eliciting a statistical 'break-in' in certain contexts, much like the unexpected appearance of a dad joke in a serious conversation.

The statistical robustness of our findings, including the correlation coefficient of 0.8525528 and the p-value of less than 0.01, reinforces the significance of this correlation. This serves as a gentle reminder that even in the world of research, sometimes the most unexpected relationships can be statistically sound, much like stumbling upon a statistical unicorn in a field of data analysis.

As our analysis grapples with the enigma of Orlando's popularity and West Virginia's criminality, it becomes evident that this unexpected correlation has spurred conversations and contemplations worthy of further exploration. This study sets the stage for future investigations into the complex interplay between names, societal perceptions, and behavior. It also reminds us that when it comes to statistical analysis, sometimes the most peculiar correlations can hold surprising insights, akin to finding a nugget of wisdom in a sea of data.

Despite the lighthearted humor that permeates our discussion, the implications of this correlation are not to be dismissed lightly. The potential influence of naming trends on societal phenomena raises thought-provoking questions, and the curious case of Orlando and West Virginia beckons further inquiry into the multifaceted world of statistical associations and societal influences. However, researchers are cautioned not to jump to conclusions, as correlation does not imply causation – although it does make for a captivating tidbit at academic soirées and dinner parties.

In light of these findings, it seems that no more research is needed in this particular area - unless, of course, one wishes to explore the criminal proclivities of other names. In the wise words of a seasoned researcher: "May your samples be representative, and your hypotheses thought-provoking!"

In summation, through a blend of diligent data collection, rigorous statistical analyses, and unwavering ethical adherence, our research seeks to shed light on the curious link between the popularity of the name Orlando and the incidence of burglaries in West Virginia. As we venture further into the statistical wilderness, guided by the twin torches of methodological rigor and statistical slyness, we remain poised to uncover hidden truths and unexpected revelations, armed with nothing but our wits and an unyielding dedication to unraveling the enigmatic web of correlation and causation.

As the saying goes, "May your data be clean and your correlations be meaningful."