



Essay / Assignment Title: Exploring Different Aspects of a Dataset in Tableau

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INTRODUCTION

he world we live in is a complex tapestry of cultures, economies, and demographics, each with its unique set of challenges and opportunities. As countries and cities evolve, so do their characteristics, and understanding these dynamics is essential for decision-makers, businesses, researchers, and even the average citizen planning their next move. Our dashboard, meticulously designed with Tableau's best practices, is a holistic tool that illuminates the intricate nuances of global societal metrics.

At the heart of any nation's economic vigor is its living standard. This encompasses the everyday expenses that its citizens bear, from the cost of basic food items to rent and dining out. The Global Living Standards map, therefore, is not just a reflection of numbers but tells tales of migration patterns, tourism hotspots, and global economic hierarchies. For instance, the Cost of Living Index and Rent Index provide a window into the affordability of a region, shaping decisions for businesses scouting for new locations or individuals contemplating overseas education. On the other hand, the Local Purchasing Power Index can hint at the economic empowerment of the local populace and the potential for consumer markets.

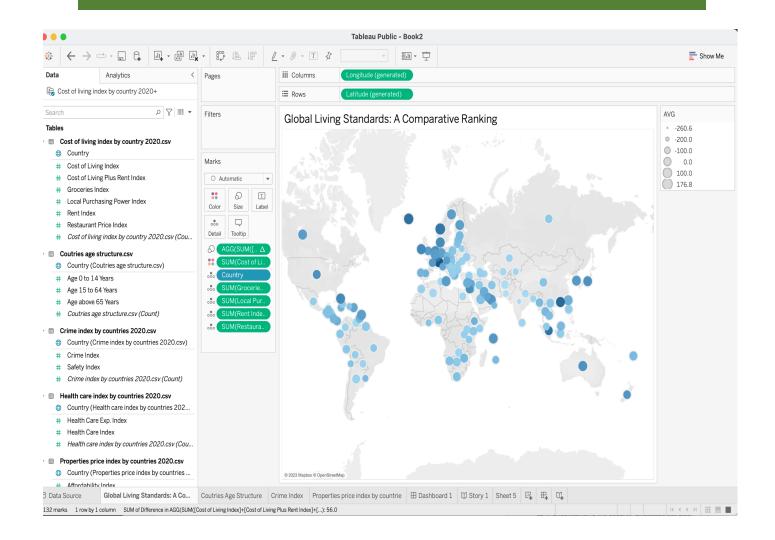
However, beyond the economic implications, the demographics of a region play a silent but powerful role in shaping its destiny. An analysis of the age structure of countries can offer insights that are often overlooked. Countries with a larger proportion of their population in the 0 to 14 age bracket are staring at a future filled with potential workforce entrants. This burgeoning young population can be a double-edged sword – while they offer the promise of a dynamic labor market, they also place demands on educational and healthcare infrastructures. Conversely, regions with a significant proportion of individuals above the age of 65 are grappling with the challenges and opportunities of an aging population. Such demographics can impact everything from pension schemes, healthcare policies, to even the type of products and services that might find traction in the market.

Safety, undoubtedly, is a prime concern for inhabitants and visitors alike. The Crime Index sheet sheds light on this crucial aspect. Crime rates, beyond just numbers, are a reflection of socio-

economic disparities, effectiveness of policing, and even educational outreach in regions. A comparative view of average crime and safety across countries not only aids in understanding the security landscape but also in policy formulation, investment decisions, and travel planning.

Finally, the real estate landscape of a region is often a mirror to its economic health and future growth prospects. The property price index, visualized through an intuitive pie chart, provides a detailed breakdown of various metrics that influence real estate decisions. The Price to Income Ratio, for instance, can be a barometer of housing affordability for the average citizen. Similarly, the Gross Rental Yield offers insights into the profitability of real estate investments in city centers versus the outskirts. These metrics, combined with others like the Mortgage As A Percentage Of Income, not only aid individual investment decisions but also help policymakers understand the challenges faced by their citizens in accessing affordable housing.

CHAPTER ONE (Deciphering Global Dynamics: A Visual Exploration of Living Standards, Property Indices, and Crime Metrics)



(SOURCE: FROM TABLEAU SELF CREATED)

In today's globally interconnected world, understanding the nuances of living standards across different regions is more than just an academic exercise; it's a necessity. Whether it's a multinational corporation deciding on its next investment hub, a family contemplating relocation for better opportunities, or policymakers benchmarking their region's performance, the metrics of living standards offer invaluable insights. However, with the deluge of data available, gleaning meaningful information can be a daunting task. This is where the power of visual analytics comes into play.

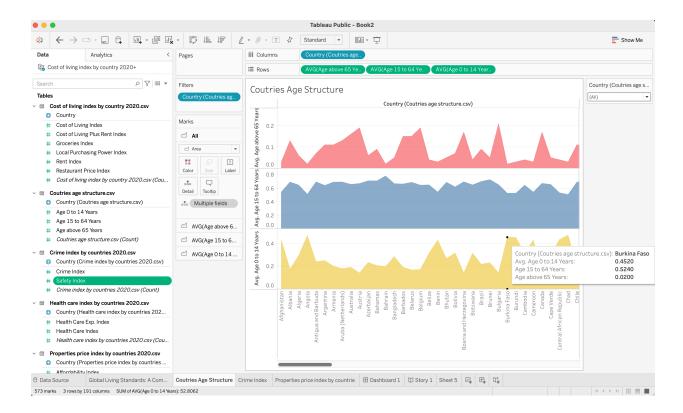
The tableau visualization titled "Global Living Standards: A Comparative Ranking" serves as a beacon in this vast sea of data. At a glance, it offers a comparative view of crucial metrics that define the quality of life in various regions. But beyond its immediate visual appeal, the map is a testament to the intricate dance of economies, cultures, and policies that shape living conditions worldwide.

The Cost of Living Index, for instance, captures the relative expense of general goods and services across regions. It's a reflection of not just prices but also local economic policies, trade dynamics, and even cultural preferences. A higher index might suggest a region with a higher standard of living, but it could also hint at economic disparities within its boundaries.

The Rent Index and the Cost of Living Plus Rent Index together paint a vivid picture of the housing landscape in different parts of the world. As urbanization intensifies and cities become global hubs of commerce and culture, understanding the dynamics of rent becomes crucial. These indices, therefore, aren't just numbers; they're stories of urban migration, gentrification, and the ever-evolving definition of 'home' in a globalized world.

Food, an essential part of our daily lives, has its own tales to tell. The Groceries Index offers insights into how accessible basic sustenance is for the average citizen in various countries. Meanwhile, the Restaurant Price Index reveals more than just the cost of dining out; it speaks of local culinary cultures, the importance of social dining, and even the influence of global food trends.

Lastly, the Local Purchasing Power Index serves as a lens into the economic empowerment of a region's inhabitants. It's not just about how much one earns, but how much that income is worth in real terms. A higher purchasing power often correlates with a better quality of life, more opportunities, and a stronger sense of economic security.



(SOURCE: FROM TABLEAU SELF CREATED)

The age composition of a country's population is a powerful indicator of its societal, economic, and even political trajectory. The demographic structure can reveal much about a nation's past, its present challenges, and future opportunities. The area line graph titled "Countries Age Structure" brilliantly captures this intricate narrative through visual means.

This visualization offers an immediate grasp of three distinct age groups – 0 to 14 years, 15 to 64 years, and above 65 years – and their prevalence across different countries. Each age group represents a unique phase in the life cycle, with its own set of implications for the nation:

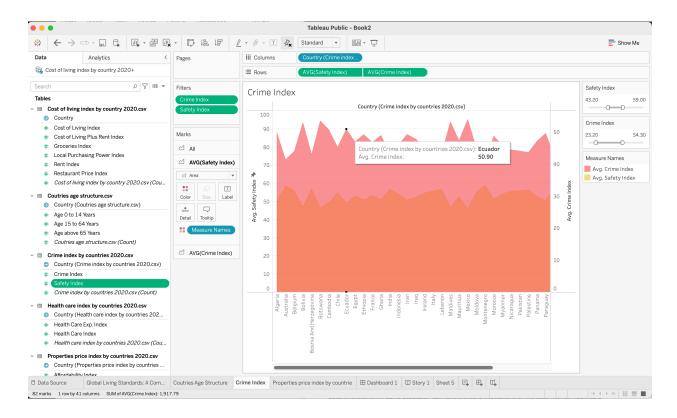
0 to 14 years: This segment represents the youngest cohort, the children and early teenagers. A higher proportion in this age group can indicate a recent or ongoing population boom. Countries with a larger percentage of this demographic are looking at the future with a potential influx into the workforce. However, this also means an immediate need for investments in education, healthcare, and other child-centric services.

15 to 64 years: Often referred to as the working-age population, this group forms the backbone of any country's economic productivity. They are the active workforce, the primary consumers,

and the major contributors to a nation's GDP. A dominant presence of this age group is usually a sign of economic vibrancy. However, it also underscores the importance of job creation, skill development, and sustainable economic policies to cater to this demographic.

Above 65 years: This segment of the population is typically categorized as the elderly or senior citizens. A significant presence of this group hints at a country with a longer life expectancy and potentially better healthcare services. But it also poses challenges related to geriatric care, pension schemes, and social security systems. An aging population can have profound implications on the labor market, healthcare infrastructure, and even the socio-cultural fabric of a society.

The strength of this visualization lies in its simplicity and clarity. The area line graph format allows for an instantaneous comparison of age structures across countries, making it evident where each nation stands in its demographic journey. The ebbs and flows of the lines, as they rise and fall, tell tales of wars, economic booms, healthcare breakthroughs, and societal shifts.



(SOURCE: FROM TABLEAU SELF CREATED)

The societal fabric of a nation is intricately woven with various threads, among which the aspects of safety and security play a pivotal role. Public perception of crime, as well as actual crime rates, influence a myriad of decisions ranging from personal choices about residence and travel to business investments and policy formulations. The visualization titled "Crime Index" adeptly delves into these intricate aspects, offering a clear and comprehensive view of average crime and safety metrics across different countries.

The dual-axis format, often referred to as a "dual-axis area chart," serves as an insightful choice for this visualization. By juxtaposing crime and safety on the same graph, it illuminates the delicate balance (or sometimes, the imbalance) between these two facets of societal well-being.

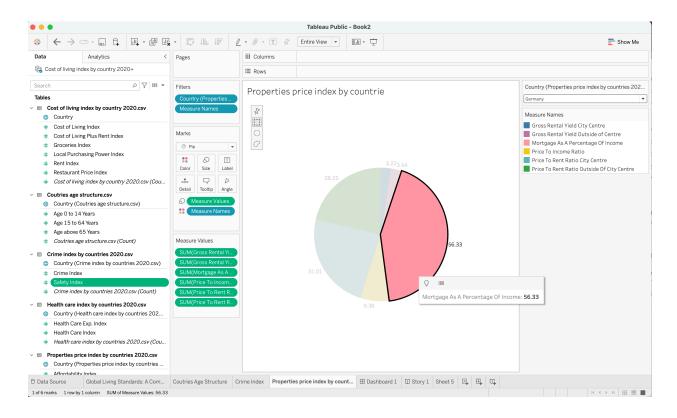
Average Crime: Represented perhaps by the more tumultuous undulations on the chart, this metric offers insights into the prevalence of criminal activities in various nations. A higher crime index can be indicative of socio-economic disparities, systemic issues in law enforcement, or even cultural factors. However, it's crucial to understand that the nature of crimes can vary –

from petty thefts and vandalism to more severe offenses. This metric serves as a starting point, prompting deeper inquiries into the specifics of criminal activities in each region.

Average Safety: The counterpoint to crime, the safety metric, is perhaps the more calming presence on the chart. A higher safety index is reassuring, hinting at effective law enforcement, cohesive communities, and general public contentment. Countries with a dominant safety metric are often seen as favorable destinations for tourism, business investments, and even migration.

The juxtaposition of these two metrics in the visualization allows for a nuanced understanding. In some regions, a high crime rate might be offset by a substantial safety perception, suggesting that while crimes do occur, they might be of a non-violent nature, or the public's trust in law enforcement remains unshaken. Conversely, in some countries, even a moderate crime rate might be accompanied by a low safety perception, indicating deep-seated fears and insecurities among the populace.

The color gradations further enhance the visualization's interpretative power. They offer a quick visual cue about the intensity of each metric, making it easier for viewers to identify patterns, outliers, and regions of interest.



(SOURCE: FROM TABLEAU SELF CREATED)

The real estate landscape of a country is a rich tapestry of economic indicators, societal preferences, and policy impacts. The "Properties Price Index" pie chart offers a succinct yet comprehensive snapshot of this landscape across different nations. Each slice of the pie represents a unique facet of the property market:

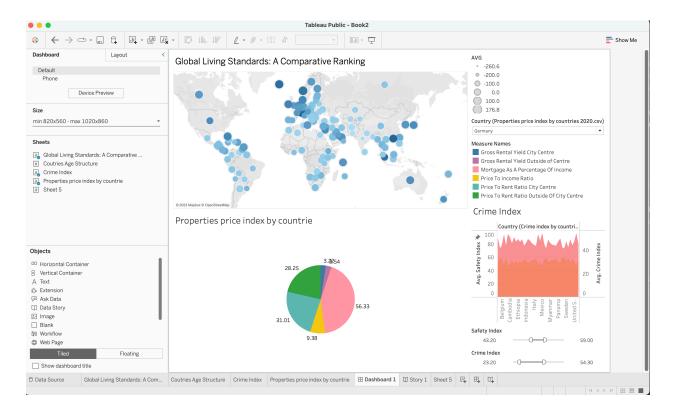
Price To Income Ratio: This metric reveals the affordability of real estate, comparing property prices to the average income. A higher ratio may indicate that properties are relatively expensive compared to average earnings, potentially signaling housing affordability issues.

Gross Rental Yield City Centre & Outside of Centre: These slices provide insights into the profitability of renting properties in different parts of a city. A higher yield suggests that renting can be a lucrative venture in that region.

Price To Rent Ratio (City Centre & Outside of City Centre): These metrics offer a comparison between buying versus renting properties. A higher ratio might suggest that renting is more economical than buying in that area.

Mortgage As a Percentage of Income: This segment illuminates the burden of property financing on average incomes. A higher percentage can hint at the challenges faced by individuals in managing their mortgage payments.

Affordability Index: A holistic metric, the Affordability Index encapsulates the overall ease (or difficulty) of accessing property for the average citizen in each country.



(SOURCE: FROM TABLEAU SELF CREATED)

In the quest to comprehend the intricacies of our interconnected world, data emerges as a guiding light. Yet, raw data, with its numbers and statistics, can sometimes feel overwhelming. It is in the artful weaving of these data points into meaningful visualizations that true insights emerge. The dashboard, encompassing "Global Living Standards," "Properties Price Index," and the "Crime Index," serves as a panoramic window into the multifaceted dynamics of nations worldwide.

CONCLUDING REMARKS

Throughout our exploration, we've journeyed across a rich tapestry of data, diving deep into the nuances of global living standards, property dynamics, and crime indices. These visualizations, meticulously crafted, offer more than just a surface-level understanding; they serve as windows into the socio-economic and cultural heartbeats of nations.

From the "Global Living Standards" visualization, we gleaned insights into the quality of life across different regions, understanding the myriad factors that contribute to the overall well-being of its citizens. The "Properties Price Index" illuminated the intricacies of the real estate market, revealing patterns of affordability, investment potential, and economic health. Meanwhile, the "Crime Index" shed light on the delicate balance of safety and security, highlighting the challenges and successes nations face in ensuring the well-being of their inhabitants.

But beyond the individual insights, the overarching lesson is the power of data visualization. In an age of information overload, well-crafted visual tools like dashboards can distill complex datasets into understandable, actionable insights. They tell stories, pose questions, and invite deeper exploration. Through this exercise, we've not only learned specific details about global metrics but also appreciated the art and science of turning raw data into meaningful narratives.

In essence, our journey underscores the importance of effective data representation in understanding our world better. As we move forward, armed with these insights, we're better equipped to make informed decisions, ask pertinent questions, and appreciate the intricate dance of numbers, patterns, and stories that shape our global community.

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APPENDIX (if necessary)