**Global Fertility Trends and**

**South Korea's Demographic Challenge**

**Analyzing Fertility Rates Worldwide and Examining**

**South Korea's Low Fertility Crisis**

**Data Visualization Individual Assignment**

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**Data Description**

The current global decline in birth rates has emerged as a major issue centered around developed countries, with many nations expressing concerns about the potential decrease in future growth due to lower fertility rates.

I am interested in exploring how birth rates have changed globally and more specifically, delving into the situation in South Korea, where I live, which is considered to be at a critically low level. Firstly, I plan to examine the trend in birth rates among OECD countries and then observe the global fertility rate situation through a heatmap. Additionally, I will compare South Korea's fertility rates with other OECD countries and create a detailed chart to further analyze Korea's birth rate statistics.

My goal is for my work to aid policymakers in understanding the current situation in South Korea and to contribute to the development of policies to improve birth rates.

I gathered data using Statistia, and for some necessary information not available there, I referred to OECD, The World Bank, and KOSIS (Korean Statistical Information Service).

Note: To see my works more accurately, please review the attached Tableau file if necessary.

텍스트, 지도, 스크린샷, 아틀라스이(가) 표시된 사진

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The dashboard presents a global view of fertility rates by country for the year 2021, alongside a bar chart showing fertility rates by region.

From the heatmap, we observe a clear gradient in fertility rates, with the highest rates predominantly in African countries, as indicated by the darker shades. The scale shows a range from 0.77 to 6.82 average births per woman, signifying wide disparities in fertility rates across different regions.

The below bar chart further quantifies these observations. Sub-Saharan Africa leads with the highest regional fertility rate of 4.23. This is followed by regions like the Middle East & North Africa and South Asia with rates of 2.48 and 2.41, respectively.

Developed regions such as North America, Europe, and East Asia have fertility rates below the 2, suggesting potential long-term challenges related to population decline and aging demographics. North America has the lowest regional fertility rate at 1.46, with Europe & Central Asia and the Pacific also reporting low rates of 1.72 and 1.67, respectively. East Asia & Pacific is also below the global average 2.34, potentially signaling aging populations and shrinking workforces in these regions.

In a scatter plot chart, it is generally observed that there is a negative correlation between GDP per Capita and fertility rates. In other words, lower-income countries tend to have a much higher birth rate per woman compared to higher-income countries.

그래프, 라인, 텍스트, 도표이(가) 표시된 사진

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Now, let’s shift our focus to the birth rates within the OECD(Organization for Economic Co-operation and Development) countries, consisting of developed nations. The dashboard's data from 2010 to 2021 highlights a fertility trend across OECD countries, with the average rate showing a downward trajectory.

In 2021, Israel stands out with a high fertility rate of 3.00, while most other nations, including the EU, Canada, and Japan, fall below the OECD average. Particularly noteworthy is South Korea's position at the end of the spectrum; its fertility rate not only continues to drop but has reached the lowest among the countries studied, at 0.81 in 2021. This points to profound demographic shifts and potential challenges in maintaining economic stability and growth due to an aging population.

Among OECD countries, no correlation is found between GDP per capita and fertility rates. This differs from what was shown in the previous chapter for countries worldwide. The reason could be that OECD nations are predominantly composed of developed countries.

텍스트, 스크린샷, 도표, 그래프이(가) 표시된 사진

자동 생성된 설명

Let's take a closer look at the fertility situation in South Korea. The first chart depicts the trends in newborn numbers and fertility rates. South Korea's fertility rate has steadily declined from 1.35 in 2012. It experienced a significant drop around 2015 and by 2022 had fallen to 0.78. The number of newborns has also halved from approximately 480,000 in 2012 to 249,000 in 2022, within a mere decade.

I hypothesize that the declining fertility rate is linked to shifting perceptions of marriage since South Korea is known to have one of the strongest societal expectations that childbirth should follow marriage. According to the statistics, South Korea saw 2.5% of births outside marriage in 2020. Recent data released by KOSIS(Korea Statistical Information Service) indicates a substantial decline in the positive perception of marriage. In 2022, only 41.9% of males aged 20-29 responded positively, a drop of nearly 30 percentage points from 71.9% in 2008. Similarly, females in the same age group decreased from 52.9% to 27.5%. For those in their thirties, both males and females exhibited significant declines, from 69.7% to 48.7% and from 51.5% to 31.8%, respectively.

To add to the discussion based on the attached charts, it may be relevant to consider the societal shifts that are influencing these trends. The increasing acceptance of diverse family structures, career prioritization, and the economic considerations of raising children in modern South Korea could be contributing factors. Additionally, the government's response to this trend, in terms of policy and support for families, may shape the future trajectory of fertility rates and societal attitudes towards marriage and childbearing.