

Question 4

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Abstract

This readme explores India's historical performance in the Summer Olympics compared to similarly sized economies, and emerging markets, alongside analyses of dominant countries across both Summer and Winter Games. It also delves into nations that exceed expectations in medal counts relative to their size and resources.

1. Introduction

This readme delves into India's performance in the Summer Olympics relative to similarly sized economies, emerging markets, and select South American nations. It also provides analyses of dominant countries across both Summer and Winter Games, and explores which nations consistently exceed expectations in medal counts relative to their size and resources. Additionally, personal insights are offered on a favorite Olympic event, with analyses of historical winners and participating countries.

To start, I will plot India's medal count compared to other emerging markets. Despite its large size, high absolute GDP, and substantial population, India's prerequisites for achieving success in this context should be favorable.

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Contributions:

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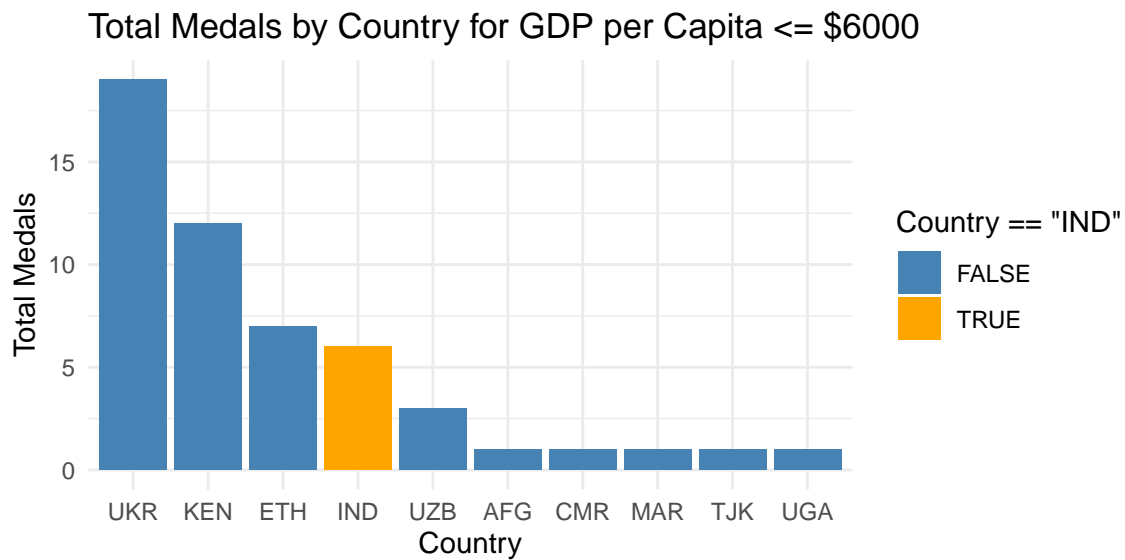


Figure 1.1: Medals won by India compared to other emerging economies

This initial visualization reveals that India has won very few medals compared to its emerging economies competitors.

Smaller economies may excel in the Olympics due to their higher concentration of resources per capita. To investigate this, I will plot medal counts relative to population size.

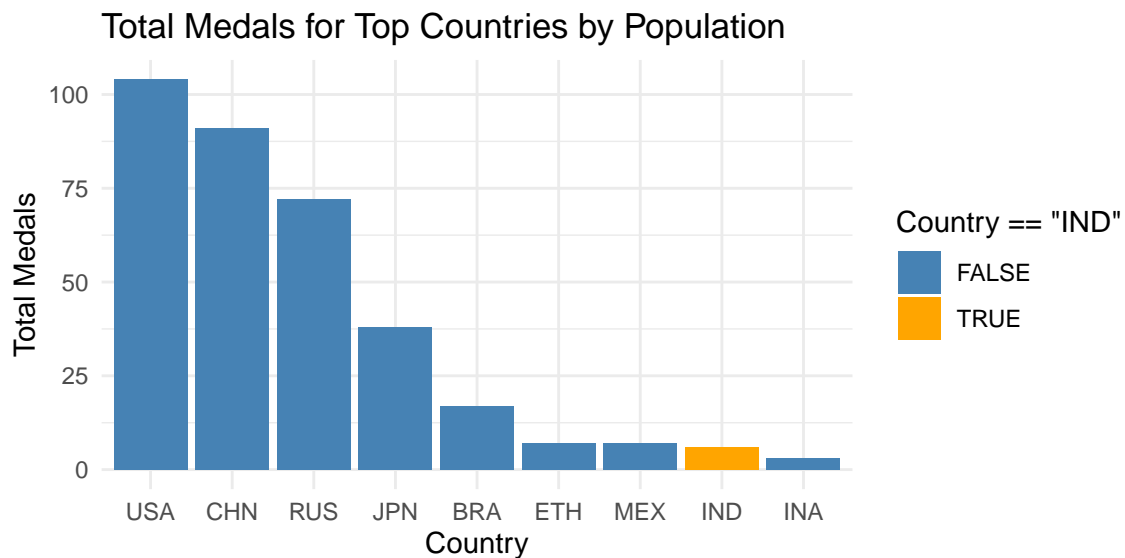


Figure 1.2: Models for countries with high population

I will now conduct a comparative analysis between the Winter and Summer Olympics, examining overall performance across all countries and all years.

Lets investigate the most successful countries in the Summer Olympics

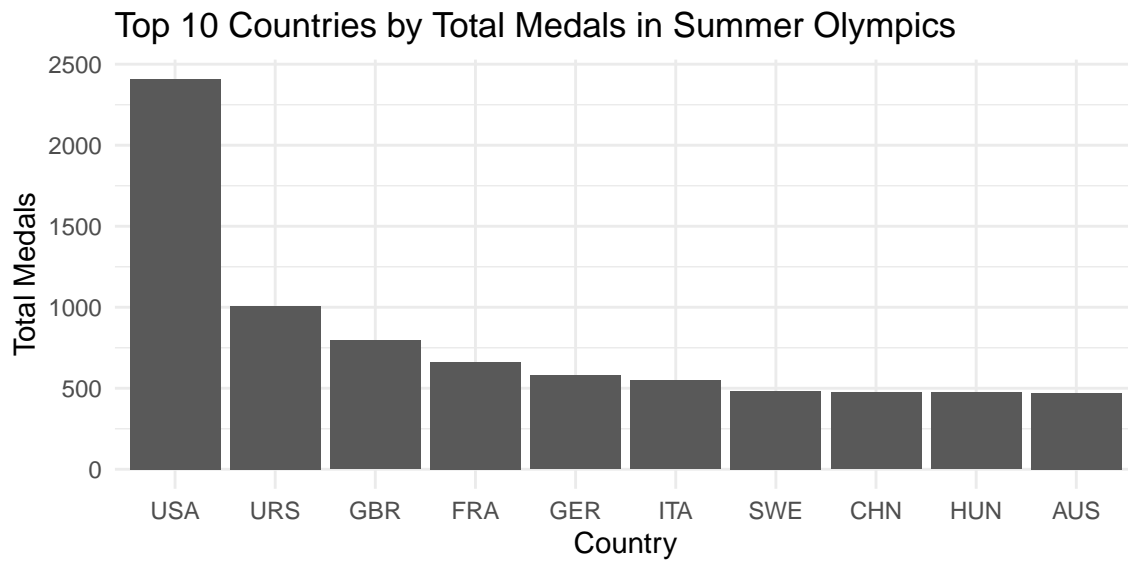


Figure 1.3: Top Countries Summer Olympics

To determine if a country exceeds its expected performance in the Olympics, two key factors come into play: financial investment in training Olympic athletes, which is costly, and population size, as larger populations generally enhance the likelihood of success.

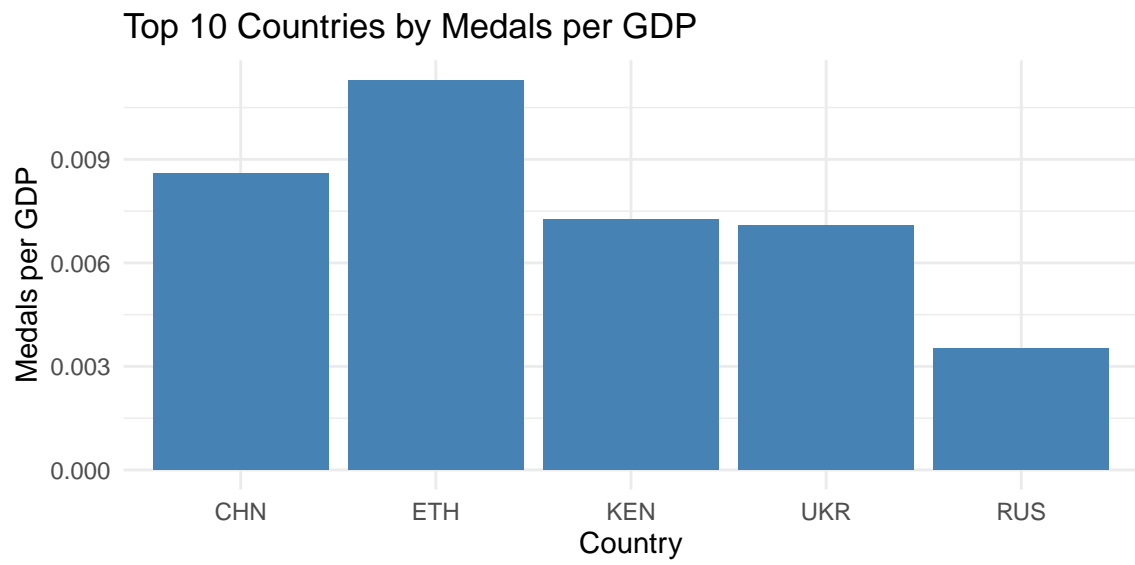


Figure 1.4: Medals per Income per GDP

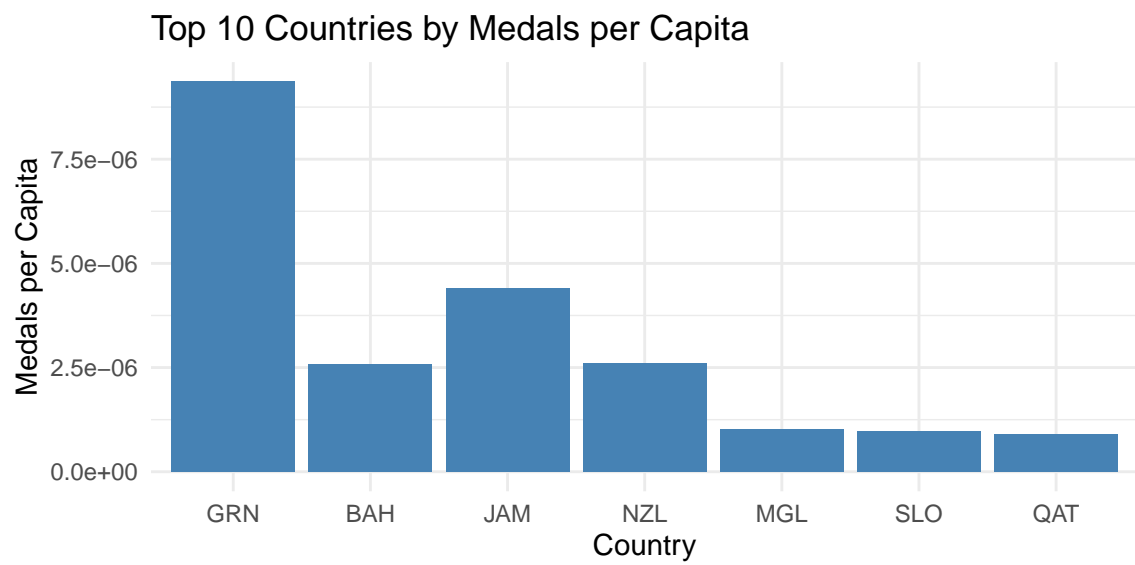


Figure 1.5: Medals per Population