Primate Cities

The Law of the Primate City and the Rank-Size Rule
By Matt Rosenberg, About.com Guide

A country's leading city is always disproportionately large and exceptionally expressive of national capacity and feeling. The primate city is commonly at least twice as large as the next largest city and more than twice as significant. - Mark Jefferson, 1939

Geographer Mark Jefferson developed the law of the primate city to explain the phenomenon of huge cities that capture such a large proportion of a country's population as well as its economic activity. These primate cities are often, but not always, the capital cities of a country. An excellent example of a primate city is Paris, which truly represents and serves as the focus of France. They dominate the country in influence and are the national focal-point. Their sheer size and activity becomes a strong pull factor, bringing additional residents to the city and causing the primate city to become even larger and more disproportional to smaller cities in the country. However, not every country has a primate city, as you'll see from the list below.

Some scholars define a primate city as one that is larger than the combined populations of the second and third ranked cities in a country. This definition does not represent true primacy, however, as the size of the first ranked city is not disproportionate to the second.

The law can be applied to smaller regions as well. For example, California's primate city is Los Angeles, with a metropolitan area population of 16 million, which is more than double the San Francisco metropolitan area of 7 million. Even counties can be examined with regard to the Law of the Primate City.

Examples of Countries With Primate Cities

- Paris (9.6 million) is definitely the focus of France while Marseilles has a population of 1.3 million.
- Similarly, the United Kingdom has London as its primate city (7 million) while the second largest city, Birmingham, is home to a mere one million people.
- Mexico City, Mexico (8.6 million) outshines Guadalajara (1.6 million).
- A huge dichotomy exists between Bangkok (7.5 million) and Thailand's second city, Nanthaburi (481,000).

Examples of Countries that Lack Primate Cities

- India's most populous city is Mumbai (formerly Bombay) with 16 million; second is Kolkata (formerly Calcutta) with more than 13 million; and third is less than 13 million.
- China, Canada, Australia, and Brazil are additional examples of non-primate-city countries.
- Utilizing the metropolitan area population of urban areas in the United States, we find that the U.S. lacks a true primate city. With the New York City metropolitan area population at approximately 21 million, second ranked Los Angeles at 16 million, and even third ranked Chicago at 9 million, America lacks a primate city.

Rank-Size Rule

In 1949, George Zipf devised his theory of rank-size rule to explain the size cities in a country. He explained that the second and subsequently smaller cities should represent a proportion of the largest city. For example, if the largest city in a country contained one million citizens, Zipf stated that the second city would contain one-half as many as the first, or 500,000. The third would contain one-third or 333,333, the fourth would be home to one-quarter or 250,000, and so on, with the rank of the city representing the denominator in the fraction.

While some countries' urban hierarchy somewhat fits into Zipf's scheme, later geographers argued that his model should be seen as a probability model and that deviations are to be expected.