

2014 RTR Report

Rapid Transit to Resident Ratio

The Rapid Transit to Resident Ratio (RTR) is a small statistic with a lot of information. The metric compares a country's urban population (cities with more than 500,000 people) with the length of rapid transit lines (including rail, metro, and BRT) that serve them. This metric offers a snapshot of the access, equity, and quality of life that come with increased transport options and that allow countries to track progress over time.

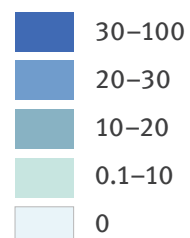
Many factors influence RTR. A dense city may require less transit length to provide the same level of access as a more sprawling city with the same population. Because of this, RTR is perhaps most useful for comparing transit growth over time. As populations grow, transit investment must at least keep pace with that growth and must increase faster than population growth in order to improve the ability of people to move around cities.

This map presents a baseline for countries to gauge their transit growth in the coming years. Across a diverse range of financing and development levels, countries can all make smart investments in their infrastructure, and in turn, an investment in their people.

Rapid Transit to Resident Ratio

Darker blue indicates more transit per resident

$$RTR = \frac{\text{Kilometers of Mass Rapid Transit}}{\text{Millions of Urban Residents}}$$



Brazil 10.7

In preparation for the World Cup in 2014, and the Rio Olympics in 2016, Brazil's cities have invested heavily in transit infrastructure. With an RTR of 8.3 ten years ago, Brazil has demonstrated that smart investment can yield quick gains, bringing RTR to its current level of 10.7.



BELO HORIZONTE, BRAZIL



ALMATY, KAZAKHSTAN

Kazakhstan 2.6

Starting without any rapid transit in 2004, Kazakhstan built a metro in its largest city to boost RTR to 2.6. Increasing density near transit will further improve RTR.

India 3.2

India also invested in metro systems in big cities, but not nearly as heavily as China. RTR has grown very slowly 2.2 → 3.2 as the urban population continues to boom. With more focus on BRT, this number can grow more significantly.



AHMEDABAD, INDIA

USA 14.3

Between 2004 and 2014, transit in the United States grew slightly faster than urban population (13.1 → 14.3). However, with the lowest urban density on earth, the overwhelming majority of urban trips will continue to be made by car unless there is a significant increase in transit investment.



LAS VEGAS



SHENZHEN, CHINA

China 8.3

China invested heavily in metro systems across the country over the past decade. However, compared to the investment, the RTR has grown only modestly (2.6 → 8.3), due to the extraordinary expense of metro systems. Look for China to achieve better RTR growth via BRT in the future.



LEIPZIG, GERMANY



JOHANNESBURG, SOUTH AFRICA

Germany 81.6

Germany has long had an extensive rapid transit, with an RTR of 78.9 in 2004. Germany has maintained this high level of transit, bringing RTR to 81.6 in 2014. The lower densities of this wealthy nation, however, mean a higher RTR is necessary to serve a large number of trips.

South Africa 3.6

South Africa invested heavily in bus rapid transit in advance of the 2010 World Cup, bringing its RTR up from near 0. As the systems in larger cities expand and new systems come online, expect this number to increase further.