

# **Comparing social development of towns of West Bengal in 2021 with respect to 2011**

## **Abstract**

Government of India releases the census data once in every 10 years. This data provides deep insights regarding the Indian society and can be used to build a metric for social development. However, one disadvantage is that, this data is released once in every 10 years and the society undergoes a lot of change in this period. In this case study, we build a metric to calculate the social development of towns in West Bengal for 2011 and 2021. We have focused on education, healthcare and economic situation of a town to measure its social development index and so we have considered the data containing information on the number of educational institutions, hospitals and pharmacies, banks in a town. For 2011, we obtain data on these fields from the District Census Hand Book, 2011 and for 2021, we use the Google Nearby Search api which provides us real time information on these fields. We use linear discriminant analysis to reduce all these fields into one single field which serves as the social development index. We cluster the towns based on their development index and their distance from the state capital for these 2 years. The clusters represent towns which are similar with respect to their social development. We compare the clusters for 2011 and 2021 and observe the towns which have developed more in the recent times compared to 2011. We also observe how distance of towns from the state capital affects their social development.