

The background features several large, semi-transparent 3D geometric shapes, including spheres and cylinders, in shades of deep blue and magenta. These shapes are arranged in a dynamic, overlapping composition. In the upper right corner, there are three small white dots arranged vertically. The main title is centered in a large, bold, white sans-serif font.

CHINESE HIGHWAY RELATED DATA VISUALIZATION

Why we choose Chinese highway ?

- The goal of this project is to design a series of service systems that can improve and enhance the service area's user experience with China's highway service area.

In order to achieve this goal, it is first necessary to analyze China's highway service level and its changing trends. This analysis collected the mileage of highways in various regions of China, the number of service areas and the changes in the number of employees in various passenger transportation industries across the country.

Combining with the changes in the number of various types of vehicles in China, it shows the development trend of China's way service level.



Current situation & Analyse

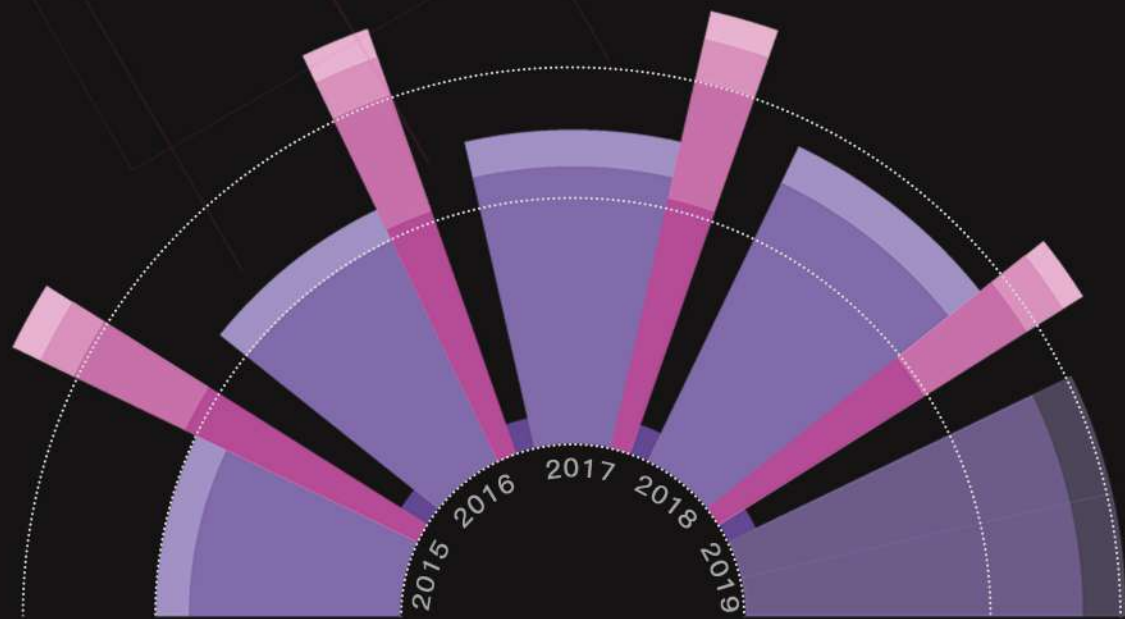
We obtained data from the National Bureau of Statistics of China.

And analyzed the data from three aspects and made the data into charts to realize its visualization.

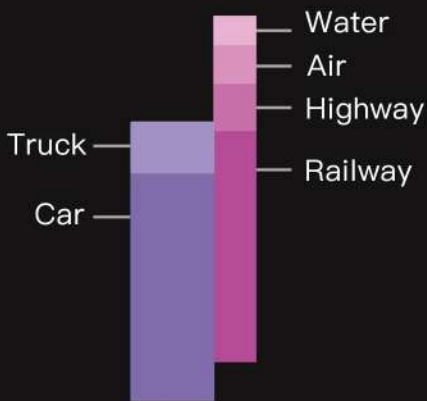
- Total mileage of highways in each province >>>>
- Chinese highway service status >>>>
- Survey of users and staffs in the service area >>>>

Chinese Highway Service Status

In contrast to the increase in vehicle ownership, the number of employees in the road service industry has declined year by year. The data shows that the number of passenger cars and trucks has been increasing every year. However, the number of road service personnel is slowly decreasing. It cannot be ruled out that the implementation of various electronic measures has reduced the demand for service personnel, but in contrast, the number of service personnel in the railway and aviation industries is still on the rise.



Ownership of Truck and Car (2015–2019)
Employment of Transport Sector (2015–2019)



Total mileage of highways in each province

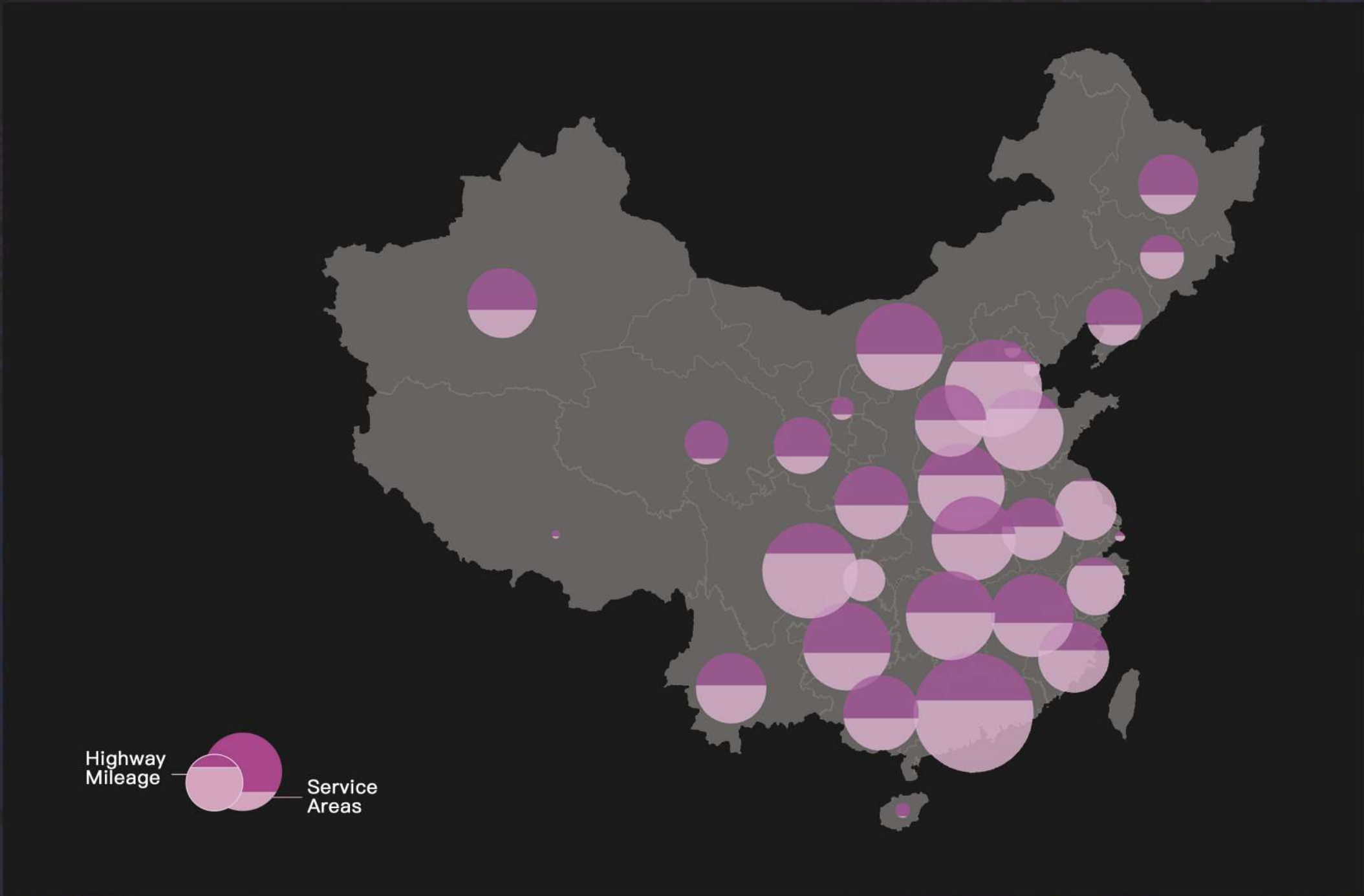
—And the average number of service areas per kilometer

There are obvious differences in the development level of China’s provinces and cities. This is not only related to the level of economic development in various regions, but also related to the development of railway and air transportation.

China’s coastal areas have developed roads and large populations, but this does not mean that the quality of services in these areas can always be higher (for example, the number of service areas per kilometer in Jiangxi Province, which is closer to the coast, is much lower than that of Sichuan Province, which is closer to the inland).

The highway mileage itself is not the higher the better. If the inland area is large and sparsely populated, the development of railway transportation is more appropriate. However, a low number of service areas may not guarantee the most basic road services in these areas. This picture indirectly shows the difference in service levels in each province by showing the density of high–speed service areas in each province.

⋮




Total mileage of highways in each province &
The average number of service areas per KM



Survey of users and staffs in the service area

We interviewed practitioners and service personnel in several service areas. They were asked about the current problems and their expectations for the service area, and displayed them by extracting keywords. The result reflects a series of deficiencies and potential development trends in the existing service areas.





Chiba University

Data Visualization / 2020 October–February

Special thanks : Chacon Quintero Juan Carlos & People who helped us

**THANK YOU
FOR
WATCHING**