

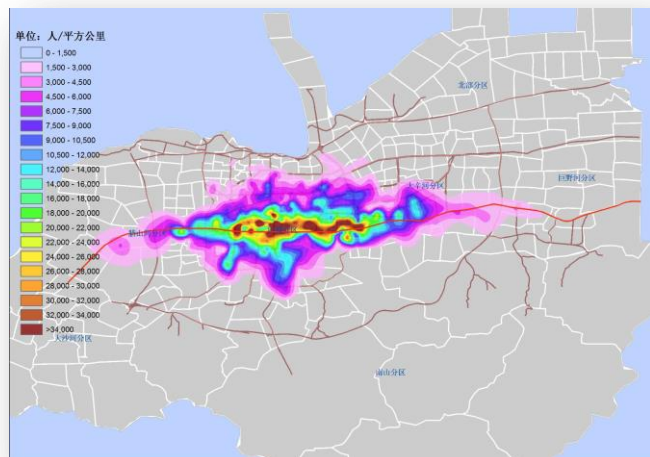


Predicting Demand using Floating Vehicle Data (Jinan, China)

The Project:

In order to optimise the service provision in the city of Jinan (population approximately 3 million), a project was developed that used anonymous mobile phone data (i.e. floating vehicle data) to understand travel patterns within the city. Two months' of mobile phone records of Jinan were analysed, to understand the spatial and temporal distribution characteristics of their travel. This included origin/destination, travel time, travel modes and passenger distribution. This data, which was encrypted to ensure anonymity, was provided for free by one of the three main mobile phone operators.

Both investment and cooperation between veracious stakeholders were necessary to enable this promising plan to develop, with the partnership between the Jinan Urban Transport Research Centre, the public transport operators and mobile phone operators being cited as an important part of the success. Additionally, the Jinan Urban Transport Research Centre have invested approximately ¥1.2m (€150,000) in developing the first stage of the tools required to analyse the data.



Current successes/problems

The analysis of this data has informed public transport planning and aided network optimisation, with additional bus lines being opened during peak time on certain routes. Key transport corridors were identified, upon which attempts to improve capacity and journey times would be focussed. The findings produced thus far from this project have also informed the design of future city planning and mobility services. Future plans involve integrating the current datasets with data from taxis and traffic signal data to develop a more comprehensive data platform from which decisions on traffic control and policy can be made.