Introduction
Tianjin has seen dramatic changes in its social landscape since China’s economic reforms of 1978. Given this context, this study aims at understanding the different urban socio-spatial patterns of Tianjin and their mechanisms in three distinctive economic contexts by adopting both statistical and spatial approaches.

Methodology
- The 1990, 2000 and 2010 Tianjin censuses at the neighborhood level.
- Research workflow:
  - Census data at neighbourhood level (1990, 2000, 2010)
  - Tianjin’s Social Landscape (1990s, 2000s, 2010s)
  - Factor Analysis
  - Multiple Regression
  - Ideal Model
  - Social dimensions spatial distribution

Results
1. PCA statistical results
- Factor 1: Urban labor force, percentage of urban elderly population, and age group 55-64 had the highest factor loadings with a positive sign indicating that they are strongly associated with the first principal component. A higher score on this component suggests a more elderly population and a higher percentage of working-age population. The factor score for this component is 0.80.
- Factor 2: Urban elderly population, single rate, and secondary industry workers had the highest factor loadings with a negative sign indicating that they are strongly associated with the second principal component. A higher score on this component suggests a more elderly population and a lower percentage of working-age population. The factor score for this component is 0.82.

2. PCA spatial results
- 1990s and 2010s: secondary industry workers appeared.
- 1980s and 2010s: highly mobile population.
- 1990s and 2010s: urban elderly population.

3. Discussions
1. A distinctive “dual-core” city
   - In addition to the traditional Urban Core located in the center of the city, the Binhai New Area (TBNA) in the southeast is forming the second core of Tianjin.
2. An asymmetric suburbanization process
   - The urban social landscape of Tianjin can be characterized as “one axis, two nuclei” urban morphology.
   - Urban core’s expansion and population movements in Tianjin is asymmetric.
   - Tianjin is now taking advantage of its close connectivity with Beijing to flourish.

Conclusion
- The urban social landscape of Tianjin can be characterized as “one axis, two nuclei” urban morphology.
- Urban core’s expansion and population movements in Tianjin is asymmetric.
- Tianjin is now taking advantage of its close connectivity with Beijing to flourish.

References