Uncovering Political Promotion in China: A Network Analysis of Patronage Relationship in Autocracy

Keywords: Network Analysis, Political Science, Computational Social Science, Political Promotion in Autocracy, Patronage Relationship

Extended Abstract

Understanding patronage networks in Chinese Bureaucracy helps us quantify promotion mechanism underlying autocratic political systems. Although there are qualitative studies analyzing political promotions, few use quantitative methods to model promotions and make inferences on the fitted mathematical model. Using publicly available datasets, we implement network analysis techniques to advance scholarly understanding of patronage networks in autocratic regimes, using the Chinese bureaucracy as an example. Using graph-based and non-graph-based features, we design three studies to examine drivers of political promotions. We find that careers of politicians are closely associated with their genders, home origins, and positions in the patronage networks.
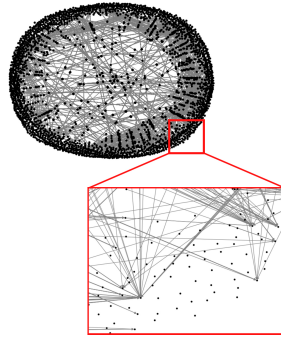
Figure 1: Visualization of entire patronage network on the top, with a subset of it zoomed in to show clear edges between nodes.

Interacting with others and forming connections are important skills among top executives in large companies and government institutions. Previous literature qualitatively demonstrated that informal connections help employees go around with formal constraints in large institutions [7]. How the patronage network will affect promotions of politicians? What features of the network play important roles in promotions? These are the questions on which we can make several different arguments.

Previous literature mainly focused on the qualitative measurements of effects of patronage among China's political elites. They often came from limited insider sources [5]. As a result, these studies often ended up with theoretical speculations and thus lack statistical inferences. Although researchers often used the term "network" in political research [5], only a few scholars had had applied actual social network analysis (SNA) [3]. Studies pointed out that the term

"network" is used a a metaphor representing a group of people with special ties [6]. Similar studies mainly focused on other topics, such as prediction of political orientations [1] and of popularity of news [4]. However, few study focused on promotion in government institutions. Particularly, nearly nothing studied patronage networks in autocratic regimes, in which relationships between colleagues could be closely modeled as a embedded networks.

We combine network analysis with statistical techniques, specifically with the goal of studying promotions in government institutions. The limited studies in patronage networks mainly focused on local network features and tried to use network analysis to study current state of Politburo behaviors. They did not try to use statistical tools to infer future political characteristics based on those features [2]. Our study draws lines across network analysis, statistical analysis and political promotions in autocratic regimes. The insights will deepen our understanding of the structures of autocratic institutions, the patronage mechanism and the promotion process.

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