Population shrinkage, the key indicator of urban shrinkage, can be considered one of the most critical challenges for contemporary global urbanization. Over the past two decades, widespread phenomena have been increasingly researched by academics. Numerous cases of population shrinkage have been found in cities in both north and south economies (Oswalt, 2005; Richardson and Nam, 2014). Among these cases, population shrinkage in resource-dependent cities (RCs) that developed in relationship to extracting and processing natural resources is particularly acute. In comparison to other types of shrinking cities, the population shrinking of RCs is to some extent predictable, but it is usually unavoidable; most economic transition strategies are developed after decline has begun and with few successful cases reported (Li et al., 2015; Martinez-Fernandez et al., 2012; Hayter and Nieweler, 2018). Prior studies have investigated the population shrinkage of RCs affected by the decline of resource-based industries, particularly in capitalist economies such as North America, Europe, Australia, Japan, and some countries in Africa (Martinez-Fernandez et al., 2012; Johannes and Isaac, 2019). Results indicate that long-term and significant population shrinkage is common among RCs affected by resource depletion, lack of technological upgrades, and changing resource market conditions. In the worst cases, RCs that fail to transform their economies are abandoned and become desolate ghost towns.

RCs are an important part of China’s urban system. According to the Plan of Sustainable Development for RCs in China (2013–2020) issued by the State Council (State Council of China, 2013), China has 262 RCs,[[1]](#footnote-1) including 126 prefecture-level administrative units and 136 country-level administrative units, and one-fourth of them have entered a recession stage. RCs in China share many aspects with RCs in capitalist economies. They are mostly located in areas that are economically and physically peripheral (Sun and Mao, 2018), and they are vulnerable to the decline of resource-based industries (Li et al., 2009). Furthermore, they are weak in local innovation systems (Xie et al., 2017) and face environmental degradation (Zhang et al., 2011). However, there are some distinctive characteristics of China’s RCs. First, comparing with those in capitalist economies, China’s RCs usually have larger population sizes. The total population of China’s 262 RCs is about 440 million, accounting for 33% of China’s population (Yu et al*.*, 2019). Second, the scattered settlement pattern is common in China’s RCs, especially in prefecture-level RCs, as most of them are founded at sites of resource extraction and processing (Song and Wang, 2011). Third, most of China’s RCs emerged under intensive investment from the central government in the 1950s. Under an economic strategy that strongly favored heavy industrialization, they undergo not only the boom-and-bust economic cycles of the dominant resource-based industries but also the systematic reformation from planned economy to socialist market economy ((Li et al*.*, 2015).

While massive and fast urban population growth has been the leading trend of China’s urbanization since the 1990s, population shrinkage is emerging in China’s RCs and has been considered one of the major types of China’s shrinking cities (Li and Mykhnenko, 2018; Long and Gao, 2019). Few studies have identified the population shrinkage of some of China’s prefecture-level RCs since 2000, especially resource-depleted cities (He, 2014, 2017) and RCs in the less-developed northeast and northwest regions (Chen and Mei, 2018; Gao and Long, 2017; Woodworth, 2016). These studies have pointed to the typical drivers behind this phenomenon, such as the slowdown of national economic growth, single industrial structure, and the boom-and-bust industrial cycle (He, 2014, 2017). However, the characteristics and drivers of population shrinkage of China’s RCs have not adequately been examined. First, existing studies mainly focus on prefecture-level RCs in the declining stage or in particular regions, and the overall picture of population shrinkage in China’s 262 RCs and the variations across regions and stages of RC life cycles is still unknown. Second, related literature only gives attention to the population change in China’s RCs from 2000 onward, without considering the potential population shrinkage of China’s RCs in the 1990s. However, many RCs in fact began to enter a transition period in the 1990s. The former top leader Jiang Zemin addressed the importance of sustainable development of RCs when he visited Daqing (known as the oil capital of China) in 1990 (Wang et al*.*, 2014a). Third, the use of prefecture-level cities as a unit of analysis in prior studies is a problem. Given the dispersed urban morphology of most prefecture-level RCs in China, this unit of analysis is too coarse as it cannot detect intracity population changes. Finally, while it is argued that China’s particular pathways of socialist industrialization and subsequent reform established the condition for population change among RCs in the 2000s (Woodworth, 2016), the impacts of systematic reformation on population shrinkage in China’s RCs has not been widely discussed. Against this background, this chapter tries to present an overall and detailed analysis on the population shrinkage of China’s RCs and discuss the distinctiveness of the phenomenon in China.

1. Three indicators were used to identify the 262 RCs: the performance index of mining industries, the scale coefficient of resource output, and the historical and expected contributions of resource supply. For more details, please see Yu et al. (2019). [↑](#footnote-ref-1)