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## THE SPATIAL SPILLOVER OF ADMINISTRATIVE LAW ENFORCEMENT OF ENVIRONMENT PROTECTION AND ITS IMPACT ON LAYOUT

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## Abstract

In different regions, the laws and measures of environmental protection vary to certain extent, and the emphasis of the methods of law enforcement differs from region to region accordingly. The different methods of law enforcement of environmental protection have resulted in heterogeneity in the interregional interactions regarding environmental protection, so it's correlation with the Total Factor Productivity (TFP) of production industry needs to be discussed further. In view of this, this paper analysed the spatial spillover effect of administrative law enforcement of environmental protection and its impact on the layout. At first, this paper calculated the TFP of production industry based on Data Envelopment Analysis (DEA) and the Slacks-Based Measure (SBM) model. According to flexibility and pollutant treatment efficiency, the law-enforcing actions carried out by law enforcement agencies of environmental protection can be divided into two types: indirect enforcement, and direct compulsory enforcement. Then, this paper further studied the spillover effect of different methods of law enforcement on the local production enterprises and those in neighbouring areas. At last, this paper also discussed the impact on the layout and gave the corresponding results. The research results reveal the specific impacts of environmental administrative enforcement intensity and methods (indirect enforcement and direct enforcement) on the environmental production efficiency of local and neighboring manufacturing enterprises, as well as the spillover effects and layout impacts of these enforcement actions in space.

Key words: administrative law enforcement, environmental protection, impact on layout, spatial spillover effect, Total Factor Productivity (TFP) test

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