The Effects of State Smart Growth Management and Local Contexts on Local Open Space Preservation

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Abstract: This study explores the effects of state smart growth management and local contextual factors—in particular, aspects of hierarchical governance and the political market framework—on local open space preservation. It takes into account state intervention in local affairs, including state requirements for local planning practices in general and for open space preservation in particular. It also tests local contextual factors such as political and informal institutions, interest groups, and community and physical characteristics, using hierarchical linear modeling. The findings suggest that counties are more likely to preserve open space when the state government strongly intervenes in local planning practices. The county manager form of government and high population density are negatively associated with open space preservation, while high demands for growth control and the presence of active environmental interest groups are positively associated with it.

Keywords: smart growth management, hierarchical governance, open space preservation, political market framework

INTRODUCTION

Smart growth has emerged as a response to undesirable urban sprawl. Urban sprawl, defined as low-density development, causes a wide range of social and environmental problems such as increased pollution, longer commutes, and loss of agricultural and environmentally sensitive areas (Anthony, 2004; Downs, 1999; Myers & Puentes, 2001; Nelson et al., 2004; Squires, 2002). Smart growth is rooted in growth management but differs from growth management in terms of more comprehensive land use issues...
incorporating social equity concerns (Anthony, 2008; Ingram et al., 2009; Weitz, 1999).

Responding to the trend of urban sprawl, local, regional, and state governments have become increasingly concerned with the balance between growth and land preservation. State smart growth management has concentrated on mixed or higher-density development in order to protect open space and natural resources (Bosselman & Callies, 1971; Gillham, 2002).

In the past several decades, many scholars have examined growth management with a focus on issues such as types of policies, factors leading to adoption of such policies, and the effectiveness of growth management, including at the state level. These studies have had mixed results, some finding that state growth management influences the reduction of urban sprawl while others finding no such influence. Much of the extant research is anecdotal, consisting of a simple comparison of growth-management states to non-growth-management states or examining the effectiveness of growth management and classifying it as weak, moderate, or strong (Anthony, 2004; Brent & Lovrinh, 2000; Carruthers, 2002; Gale, 1992; Healy & Rosenberg, 1979; Howell-Moroney, 2007; Ketcham & Seigal, 1991; Kline, 2000; Nelson, 1999). Most were been conducted at a single level—city, county, or state.

Under US federalism, states have the power to define the right to use land and natural resources (Nolon, 2006). Local governments not only play their own role but also cooperate and integrate with state government as implementers of state laws. In this nested system, single-level analysis cannot provide an accurate and realistic theoretical and statistical account (Raudenbush & Bryk, 2002). Carruthers (2002) examined the impacts of growth management in metropolitan counties using disaggregated data that combined high-level units into low-level units. This leads to an analytical problem of non-independence of observations, since all counties within a particular state have identical scores on a predictor (Osborne, 2000). Therefore, this study employed hierarchical linear modeling to reduce the problem of disaggregated data.

Most extant research also does not consider political factors, including institutions and local politics, although decisions on land use policies arise from the political process (Poor & Brule, 2007). To address this gap, this study applied the political market framework, which is an integrated theoretical framework based on institutions, the political economy of urban growth, and community and physical characteristics. The political market framework is well suited to multilevel analysis, since land use decisions are not only the result of dynamic interactions between demanders and suppliers at the local level but are also restricted by decisions made at the state level.

In sum, this study examined the effect of state smart growth policies on local open space preservation as well as the impacts of local contextual factors, using a multilevel analysis of US federalism.