

MANAGING URBAN GROWTH

Can the Policy Tools Approach Improve Effectiveness?

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Research shows the social and economic costs of uncontrolled or rapid urbanization, yet promoting growth remains synonymous with urban development in most American communities into the 21st century. Growth management consists of public policy initiatives by city officials to lessen the adverse impacts of urban sprawl. This article examines local growth management in terms of the mechanisms of policy implementation tools. The emerging body of research and theory on instruments of public policy implementation gives a new perspective on the effectiveness of urban growth management efforts. The author tests policy tools theory by adapting Peter's three-way matching analytical approach, which includes policy tool, management strategy, and policy community, using urban growth management as the policy area for analysis. The author asks whether the tools approach can improve the effectiveness of urban growth management efforts. A case study of one municipality's effort in growth management provides the data.

Most community leaders consider growth essential to the future health of their cities. Politicians and administrators often measure the economic and social well-being of their communities in terms of increases in population, job opportunities, new and expanding companies, or number of housing units (Calavita, 1995; Peterson, 1981). Furthermore, through partnerships with other beneficiaries of urban growth, city leaders encourage population and business expansion and other components of urban development (Judd & Swanstrom, 1994, p. 339; Morgan & England, 1996, p. 369). The local housing industry, including building contractors, realtors, insurance companies, and financial institutions, greatly benefits from the efforts of the "urban growth machine" (Logan & Molotch, 1987). Understandably, urban policy, planning, and management endeavors focus on facilitating and enhancing the dynamics of urbanization, the movement of people from rural and dispersed places of residence and employment to more concentrated places. Urbanization, of course, contributes to urban growth and results in more cities and bigger cities. Accordingly, although growth continues to be a primary policy goal for most cities, many search for ways to effectively manage this growth.

A significant portion of previous research on growth planning and management focused on environmental issues that limited its effectiveness. For example, researchers studied the influence of the urban growth machine and the complications created by the factors of intergovernmental relations and metropolitanization. Vogel and Swanson (1995) and Fodor (1999), among others, determined that the institutional advantage of the urban growth machine restricts growth management policies and stifles public support for controlling sprawl. The lack of collaboration

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among governmental units in a metropolitan area also hampers urban growth management efforts, often encouraging “leapfrog development,” low-density residential and commercial growth, and other manifestations of urban sprawl (Judd & Swanstrom, 1994, p. 265).

This article examines local growth management policies and strategies in terms of the mechanisms and dimensions of the policy implementation tools themselves. Instead of focusing on the limits of growth management strategies in general, this article examines the nature of specific policy instruments employed by managers and planners to address urban sprawl. The emerging body of research and theory on policy tools as instruments of public policy implementation gives a new viewpoint on the discussion of urban growth management. Briefly, the policy tools approach states that the effectiveness of various implementation strategies and instruments relies in part on the structure of the tool. In other words, research indicates that the failures of many growth management efforts often result from environmental or policy-related issues or the lack of legal municipal authority and discretion (such as “authentic” municipal home rule). The tools approach predicts that the improper selection of appropriate tools by planners or managers, or in many cases, the absence of local policy tools with the right characteristics and structure, may also be critical factors.

For the policy tools approach to be useful to public administration, however, it needs to move beyond theoretical discussion into practical management application. Most policy tools research to date has focused on developing concepts and a theoretical framework. The next step needs to answer the question of how administrators can benefit from policy tools concepts. B. Guy Peters (2000), a leading scholar of this theory, has taken that step: He discussed the connection of policy tools to management theory. Peters challenged policy analysts researching responses to public policy issues to “think about three-way matching: the instrument, the policy problem, and the managerial technique” (p. 37).

This article takes up Peters’s (2000) challenge, testing the applicability and viability of policy tools theory by using his three-way matching approach, using urban growth management as the policy area for analysis. Peters’s analytical framework is used to answer a fundamental question: Can the tools approach improve the effectiveness of urban growth management efforts?

Research design consists of an examination of specific growth management tools and a review of general management approaches employed in a metropolitan community and an evaluation of its effectiveness. Employing Peters’s (2000) policy analytical framework, this article first briefly discusses the policy problem, then outlines the tools theory and approach, describing the specific tools of urban growth management, and finally analyzes the management strategies of one municipality in dealing with urban sprawl. In addition, by integrating a policy tools classification scheme developed by Howlett and Ramesh (1995) and interpreting the policy problem in terms of concepts relating to policy subsystems, this article enhances Peters’s analytical framework, making it more useful to analysts and managers in policy areas such as urban growth. The conclusion discusses implications for public management. The following provides a brief overview of the rise of urban growth management in the United States.

Urbanization and Growth Management

Research has shown the social and economic costs of uncontrolled or rapid urbanization (Black & Curtis, 1993; Burchell et al., 1998; Katz & Bradley, 1999; Porter, 1997), yet promoting growth remains synonymous with urban development in most American communities in the 21st century (Fodor, 1999, p. 11; Judd & Swanstrom, 1994, p. 24). And, while the globalization and restructuring of the economy alters the role of local government in economic development, cities continue to focus on expansion, emphasizing strategies to “facilitate the climate for growth” rather than concentrating on subsidizing individual firms as they did for the urban growth machine (Clarke & Gaile, 1998, p. 8).

Urbanization occurs inside a city or outside its boundaries. People and businesses usually move into the municipal corporate limits or locate near the city fringe. Extensive population

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growth within a city may require city officials to upgrade the existing urban infrastructure. However, more people or businesses within the city add to the local tax base, helping finance needed improvements. Urbanization and development adjacent to the confines of a city, though, requires a different public policy response. Officials initially managed this growth by annexing developing areas and expanding the boundaries of the municipality. This ability to annex developing fringe areas helped cities become “flexible,” expanding the local tax base to help pay for the additional municipal services resulting from the demands of urbanization (Rusk, 1995).

However, prior to and especially after World War II, many state governments began to limit the ability of cities to annex growing areas near their boundaries. Middle-class families moving to suburban locations during the postwar housing boom often opposed annexation, desiring local self-government and independence from the older, less affluent, and more industrialized central cities (Harrigan, 1993, p. 288; Pelan, 1992, p. 184). Metropolitanization, or the fragmentation of municipal governments within a single urban system, resulted in part from restrictions on annexation by the central or core city and the desire of citizens for local self-government. Rapid and lightly controlled development of commercial and housing properties beyond the borders of cities, or urban sprawl, is one of the by-products of metropolitanization and urbanization.

Urban sprawl changes the character of communities in ways unacceptable to many people. It is a high-profile and contentious public policy issue. A number of cities have formulated policies in recent years to deal with problems associated with rapid urban growth. Citizens approved more than 160 state and local ballot measures during the 1998 elections (Danielson, Lang, & Fulton, 1999). Growth management consists of public policy initiatives and attempts by city officials to lessen the adverse impacts of urban sprawl, encompassing the range of “public efforts to resolve issues and problems stemming from the changing character of communities” (Porter, 1997, p. vii).

Urban Sprawl: A Complex Policy Subsystem

Peters’s (2000) essay on the three-way matching of policy relevant issues, the analytical framework employed in this article, includes considerable discussion of the link between policy tools and management technique. However, Peters only briefly sketched the components of the policy problem, the third policy-relevant issue. Policy analysts, searching for tools and solutions, need to first address issues relating to the structure and scope of the policy problem itself.

One way to conceptualize elements of a policy problem such as urban sprawl is to interpret it in terms of the characteristics of its subsystem, a relatively new concept in public policy literature. In general, policy subsystems consist of the various interactions among the collection of actors that address issues relating to a specific public problem or policy area. Subsystems perform a critical function in the policy-making process: They structure the “forums where actors discuss policy issues and persuade and bargain in pursuit of their interests” (Howlett & Ramesh, 1995, p. 51).

Initially, policy subsystem research focused on “iron triangles,” the closed system supporting interest groups, congressional committees, and government agencies, thereby controlling the forums in many policy areas. Over time, though, the structure of these forums changed, becoming much more open and less rigid, evolving into policy networks (Hecl, 1978). As policy subsystems opened up, a more diverse set of actors become involved in policy discussions, often disagreeing on definitions, alternatives, and maybe even the basic goals of the policy (see Fritschler & Hoefler, 1996, for a description of the opening up of the tobacco subsystem.) The growing contentious nature of many policy areas contributed to changing the structure of these forums, resulting in more complex policy subsystems. The following examines the characteristics and nature of the urban growth and development subsystem.

A regional issue because of the specificity of its impact, yet national in nature because of the scope of its influence, rapid urban growth affects many communities and governments in the

United States. Unchecked or lightly regulated residential and commercial development, or urban sprawl, annually consumes millions of acres of fringe and outlying green, productive agricultural, and historically significant land in many urban areas (Black & Curtis, 1993; Burchell et al., 1998; Porter, 1997). The National Park Trust (2000), for example, found in a recent study that more than 90,000 acres of state parks in 32 states are threatened by the results of urban sprawl. This gobbling up of urban land has fostered a growing national countermovement, Smart Growth, a loosely organized set of incentives and sanctions designed to manage runaway sprawl and preserve space (Allen, 1999; Danielsen et al., 1998). Likewise, The Growth Management Institute (GMI), a nonprofit organization established in 1992, advocates policy strategies and practices to “achieve sustainable urban development and redevelopment while preserving environmental quality” (Porter, 1997, front cover). Urban sprawl also gained attention during the 2000 presidential race.

Although many actors in the subsystem warn of the economic and social damage caused by urban sprawl, a likely equal number of actors also support the efforts of the urban growth machine. They champion the benefits of urban growth “regulated” only by the forces of a competitive marketplace, or they downplay the benefits of growth management. A highly respected urban observer, for instance, found in his research that suburban sprawl minimally affects urban decline (Downs, 1999). Downs’s research understandably generated controversy among urban growth defenders and Smart Growth advocates (El Nasser, 2000). The 2000 census data show that the urban core of many “sprawling” cities actually gained population, supporting Downs’s findings. Reducing the disintegration of central cities has been a critical argument of urban growth management supporters.

Political commentators also participate in this policy subsystem, often criticizing the costs of zoning and subdivision laws, promoting the benefits of using the free market as a regulatory influence on urban growth (Powell, 2000). It appears that defending and encouraging growth continues to be an American tradition and obsession. Obviously, many actors in this subsystem benefit from and support the policy actions of the urban growth machine and resist changes to the policy subsystem (Fodor, 1999; Judd & Swanstrom, 1994; Logan & Molotch, 1987; Morgan & England, 1996).

Urban sprawl, like any policy area, as described above, can be better understood if discussed in terms of the nature of its forum and the overall complexity of its policy subsystem. Some domestic urban policy subsystems, such as affordable housing, community revitalization, and neighborhood redevelopment, for instance, can be characterized as having relatively low complexity levels. In these policy subsystems, actors generally agree on broad goals and objectives, such as providing shelter at an affordable price and reenergizing communities or neighborhoods, but they may disagree on the means to achieve these goals. Actors often agree on basic policy goals but differ in terms of the allocation of specific resources and programs.

The above brief review of the urban sprawl policy area reveals a subsystem characterized by diverse and strong opinions on policy goals and program proposals by subsystem actors, varying degrees of technical capacity among government units, and the overriding presence and influence of fierce market forces in the policy environment. Little agreement exists among subsystem actors over basic policy goals or programs. Labeling urban sprawl as a complex policy subsystem may be considered an understatement.

Although analyzing Peters’s (2000) policy problem in terms of policy subsystem concepts helps sort out the complexity of the urban sprawl policy area, his framework also includes the tools or instruments of government action. The following outlines the tools approach to policy implementation.

Policy Tools and Government Action

In general, the policy tools approach to public policy delivery emphasizes the existence of distinct sets of government action. Certain types of actions are more appropriate and effective in

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certain public policy situations than in others. Because of the complexity of the policy subsystem associated with managing urban growth, understanding the strengths and limitations of various public policy actions from a tools approach may increase policy and program effectiveness. Policy tools concepts and theories, then, should be of interest to all public administrators.

Initially studied in Germany and Denmark, two countries that have strong legal foundations to public administration, the policy tools approach characterizes actions by government in terms of specific objects, much like formal legal tools rather than a broad collection of managerial activities and processes (de Bruijn & Hufen, 1998). American public administration historically takes a traditional management approach to policy implementation.

The policy tools approach separates specific policy tools and instruments from the broader components of the management process. A workbench analogy helps describe policy tools and management. Policy tools can be described as the hammers and saws of public policy, whereas management processes and techniques can be described as the applications of the tools. A limited number of policy tools exist; the number of management strategies may be limitless.

Policy initiatives, programs, and policy interventions, according to tools theory, can be depicted according to the structural characteristics of their service delivery system. Therefore, policy structures can be identified, separated, and classified according to these various characteristics (Salamon, 1989). Policy tools, or instruments, constitute the categories of the different classifications, affecting implementation patterns and policy outcomes in predictable and regular ways (Bobrow & Dryzek, 1987), representing the "template that shapes policy" (Linder & Peters, 1990, p. 51). Governments employ a policy tool with a specific dimension "to produce a certain outcome in the economy and in society" (Peters, 2000, p. 37).

The dimensions of policy tools include administrative feasibility and political support (Salamon, 1989), behavioral function (Schneider & Ingram, 1990), and perceptual expectation (Linder & Peters, 1989). Dimensions define the various parameters of the policy tools categories, such as grants, subsidies, regulations, tax incentives, authority, public corporation, and direct provision. A critical distinguishing characteristic, or dimension, among most policy tools is "whether they are designed to act directly on the target population or whether they are designed to operate indirectly, through incentives and moral or instrumental behavior of individuals" (Peters, 2000, p. 39). The level of direct government action involved in the service delivery system, then, often constitutes the defining characteristic of the policy tool. That dimension is particularly useful to the study of tools used for urban growth management.

Howlett and Ramesh (1995, pp. 81-82) provided a useful complement to Peters's (2000) conceptual analytical framework. Their classification scheme is used in this article. It corresponds quite well with urban growth management, describing a range of policy tools based on the "level of state presence," scaled on an axis reflecting the amount of compulsive action mandated by government. Although not the first or most complex scheme for policy tools, Howlett and Ramesh provided a practical and empirical system that makes sense to public managers. It is based on the amount of direct government required for each growth management tool.

Table 1 outlines Howlett and Ramesh's (1995) typology of government tools. Low levels of government coercion include three types of tools that use voluntary means to provide public goods and services or meet policy goals and objectives: (a) family and community, or other types of solidarity measures, such as norms of behavior; (b) voluntary or nonprofit organizations contracted to provide programs; and (c) marketplace methods whereby people purchase public services using tolls, service charges, and fees. Compulsory government tools at the other end of the scale use high levels of coercion, including costly government intervention, social and economic regulation, public enterprises and government corporations, and traditional direct provision of public goods and services by public employees. Mixed policy instruments employ combinations of voluntary and compulsory methods, including public information dissemination; subsidies, loans, and grants by government; auction of property rights or other types of managed competition; and taxation and other types of compulsory payments and user charges for public services. Howlett and Ramesh, as illustrated in Table 1, provided the operational framework for studying the range of government actions, or tools, used in growth management.

Table 1: A Spectrum of Policy Instruments

<i>Instrument</i>	<i>Level of State Involvement</i>
Voluntary instruments	Low
Family and community	
Voluntary organizations	
Private markets	
Mixed instruments	Moderate
Information and exhortation	
Subsidies	
Auction of property rights	
Taxes and user charges	
Compulsory instruments	High
Regulation	
Public enterprises	
Direct provision	

SOURCE: Howlett & Ramesh (1995).

The Tools of Urban Growth Management: A Wide Range of Choices

Policy tools theorists, as described above, differentiate between the specific nature of the instruments of government action and the broader set of managerial efforts employed when engaging the tools. That, of course, is the foundation of Peters's (2000) framework. Tools, few in number, possess more specificity and structure than the almost unlimited number of management processes and strategies. Policy analysts, then, need to be able to identify and categorize these tools and learn to appreciate their appropriateness in certain policy situations. The following outlines the actions taken by government and the tools used in the urban sprawl policy area.

In the United States, for a variety of cultural, institutional, or environmental reasons (e.g., federalism), land use planning, the traditional source of most tools for managing urban sprawl, takes a decentralized and passive approach. In other words, the "system of land use controls in the United States is largely reactive . . . both the timing and location of growth are substantially dependent on initiatives from the private sector" (Kelly, 1993, p. 2), thereby creating a situation in which American planners tend to have less policy authority, fewer management options, and a smaller number of tools than their counterparts in most other industrialized countries. Within the urban development policy subsystem, according to many observers, private business and the urban growth machine also influence growth management efforts in most cities, supporting a decentralized and reactive urban planning approach.

Policy tools theory offers a management solution to the inherent limitations of traditional land use planning efforts by city officials. Of course, some tools are better than others in various policy contexts, according to tools theory. And, Peters's (2000) three-way matching scheme—tools, management approach, and policy problem (or policy subsystem, as employed in this article)—provides an approach for managers and planners to improve effectiveness. However, because of the complexity of the urban sprawl policy environment, policy tools and policy subsystem (or problem), component parts of Peters's system, interact with each other, affecting tool selection and effectiveness. Theory and research in tools and subsystems, however, provide guidance to the planner and administrator.

Subsystem intricacy influences policy tools selection and effectiveness. Two groups of researchers derived an important correlate of policy tools theory: The level of complexity of a policy subsystem and the technical capacity of government affect the likely implementation success of using a specific policy tool in that policy area (Howlett & Ramesh, 1995; Linder & Peters, 1989). The proposition that certain types of policy tools are more appropriate than others in some policy subsystems can be considered a foundation of policy tools theory. Table 2 outlines that predicted relationship between policy tools, government technical and implementation capacity, and the complexity of policy subsystems. Market-based or other voluntary-based

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Table 2: A Model of Instrument Preferences

	<i>Policy Subsystem Complexity</i>	
	<i>High</i>	<i>Low</i>
State capacity		
High	Market instruments	Regulatory, public enterprise, or direct-provision instruments
Low	Voluntary, community, or family-based instruments	Mixed instruments

SOURCE: Howlett & Ramesh (1995); adapted from Linder & Peters (1989).

instruments, for instance, may work best in complex policy subsystems depending on the capacity of government; regulatory tools may be more effective in less complex systems where a state possesses higher levels of capacity. This framework provides a useful way to analyze and select the specific tools of urban growth management.

Although not a complete inventory of policy tools and management approaches for dealing with urban development, the following describes a range of instruments for growth management. To give the reader a sense of the scope of growth management policies and instruments, I have selected a traditional institutional approach, a scholarly and progressive planning approach, and a nontraditional environmentalist approach. These tools are described in terms of the characteristics of policy instruments (Table 1) and subsystem preference (Table 2).

The GMI, probably the most recognized institutional advocate of controlling sprawl, prescribes a set of traditional urban planning tools widely used in local land use management efforts. "The four cornerstones of a local governments' regulatory programs are comprehensive plans, zoning ordinances, subdivision regulations, and capital improvement programs" (Porter, 1997, p. 23). Using the typology described in Table 1, it appears that the GMI tools consist primarily of regulatory mechanisms, namely, compulsory tools requiring high levels of direct government action. Although generally taking a reactive (some would say passive) approach to changes in a complex policy subsystem (e.g., private-sector development efforts in a competitive environment), the regulatory tools employed by planners tend to require expensive and difficult methods. Regulations are expensive; zoning and subdivision laws need constant revisions and interpretation, and enforcement can be costly. Table 2 predicts that regulatory tools work best in less complex policy subsystems.

Kelly (1993), a progressive land use planner and scholar, recommended an alternative set of tools for urban growth management. These tools include adequate public facilities requirements, growth phasing programs, urban growth boundaries, and rate-of-growth programs (p. 43). Using Tables 1 and 2 as an analytical framework, Kelly's tools appear to significantly differ from the ones advocated by The GMI. Kelly recommended a mixed instrument set, including regulatory tools such as the public facilities requirements and urban growth boundaries that use compulsory and enforcement methods (i.e., requirements and boundaries) and tools that seem to rely less on compulsory or regulatory methods. Growth phasing and rate-of-growth tools focus on methods, for instance, that appear to be market driven and voluntary in nature. Granted, these tools place limitations on urban growth, such as phasing restrictions, and they also use competition and market factors to influence developers. In other words, government regulations alone do not attempt to determine urban growth patterns; rather, the actions of private parties in a competitive environment influence urban development. The latter two tools come closer to meeting the characteristics of voluntary instruments as described in Table 1 and that work best in complex policy subsystems where government capacity is low, as illustrated in Table 2. Cities tend to have fewer growth management tools and lower implementation capacity outside their borders, where growth often takes place.

Fodor (1999), writing for a publisher devoted to "fundamental social change through nonviolent action," naturally outlined a "nontraditional" set of tools and management strategies for aggressively controlling urban growth, moving planners away from conventional land use

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approaches. First, Fodor advocated a specific management approach: Eliminate tools and strategies that encourage sprawl, namely, publicly financed infrastructure for new developments; provide economic development incentives for new or expanding businesses; provide various developer incentives, such as publicly subsidized land, tax increment financing, zoning variances, and waiving of regulations; give free land use planning assistance to developers; provide affordable housing programs; and build federally subsidized highways. Fodor then outlined a mixed set of policy tools as described in Table 1 that employ a wide range of compulsive or regulatory methods, including growth standards and moratoriums, community size limits, impact statements, public facility requirements, and down-zoning land density; and voluntary or market-driven methods, including development impact fees for proportionate public and private sharing of infrastructure costs, urban growth boundaries, community growth rate, and various economic incentives and disincentives (taxes, fees, etc.) that affect private developers decisions (pp. 115-139). Fodor prescribed using a complete set of policy tools to comprehensively address urban sprawl.

Understanding the nature and characteristics of the urban growth policy subsystem (Peters's [2000] policy problem) and the limitations and strengths of specific public policy tools, as outlined above, provides a wide range of management options and alternatives to planners and administrators to improve the effectiveness of urban growth management programs. The following case study examines growth management strategies and policy tools of one moderately sized community addressing issues of urban growth and sprawl.

A Case Study: Using Infrastructure as a Growth Management Tool

News reports, interviews with city planners, and census data show that the city of Omaha, Nebraska, is experiencing moderate urban growth. The Omaha, Nebraska-Iowa, metropolitan statistical area (MSA) consists of two central cities, Omaha (the primary, central city, with a 2000 population of 390,007) and Council Bluff, Iowa. The MSA also includes four Nebraska counties and one Iowa county. The 2000 census lists the Omaha MSA with a population of 716,998; compared with the 1990 census figure of 639,580, a 10-year growth rate of 12.1%, an annual increase of over 1%. Although Omaha does not appear to be affected by dramatic urban growth, at least in relation to many other metropolitan areas, nearly 8,000 people a year moved to the Omaha MSA from 1990 to 2000. Urban sprawl likely results from that kind of growth.

Articles in the local newspaper and other publications show the effects of this moderate level of urban sprawl on the quality of life in the metropolitan area. A University of Nebraska planning study estimated a significant increase in employment in Omaha, projecting that most workers would commute to central city jobs, clogging traffic arteries and increasing congestion (Wick, 2000). Others have noted the impact of spreading housing and commercial development on rural lifestyles (Epstein, 2000). Omaha's 50-mile proximity to another expanding MSA in Nebraska, the state capital of Lincoln, also affects urban development. Omaha and Lincoln appear to be growing closer together; private development and a growing number of recreational facilities annually consume acres of land between the two cities (Ochsner, 1999).

In 1999, Omaha city planners contacted the Department of Public Administration at the University of Nebraska at Omaha, asking for research assistance on various growth management tools and approaches. The planners, familiar with traditional land use planning tools, were interested in receiving a public management perspective. Preliminary interviews conducted by faculty members and graduate students with city planners revealed that they wanted to manage the growth occurring outside Omaha's corporate boundaries, but state law restrictions and ineffective tools hinder effectiveness. Accordingly, students researched Nebraska state laws, examined tools and processes used in Omaha, and compared local efforts with other similar cities (Ayers et al., 2000). Using the policy tools approach and information from Ayers et al.'s (2000) report, several observations can be made regarding Omaha's growth management initiatives.

Like most American cities dealing with urban sprawl, Omaha generally relies on regulatory- and compulsory-based policy instruments. Although these types of tools, as described above

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Omaha regulatory growth management instruments also include a tool not included in The GMI's four cornerstones: liberal annexation authority.

Nebraska's annexation laws permit Omaha to grow in terms of population; however, this compulsory local government tool generally reacts to urban development on its fringes, bringing developed areas into the city after development happens.

Conversations with Omaha city planners indicate that their local government employs the extension of sanitary sewer services as a primary planning and policy tool to manage urban growth and development outside municipal boundaries.

and in Table 1, often have built-in limitations, they still show a moderate record of success in managing urban growth. Omaha also employs tools based on voluntary, market-based, and mixed intervention mechanisms. One of those tools, a sanitary and improvement special district, discussed below, possesses characteristics fairly unique among urban planning tools, with its effectiveness subject to disagreement and controversy.

Naturally, Omaha's management tools for dealing with urban sprawl include the compulsory instruments of The GMI's "four cornerstones of a local governments' regulatory program": comprehensive plans, zoning ordinances, subdivision regulations, and capital improvement programs (Porter, 1997, p. 23). Policy tools theory states that these instruments are expensive to use and because of the nature of the urban development policy subsystem often have inherent structural limitations. For instance, the State of Nebraska grants its communities limited autonomy in many areas, including planning. State statutes and court decisions go beyond the spirit of Dillon's Rule, establishing the primacy of the state in most matters of local concern (Blair & Krane, 2000). State laws in general limit the scope of urban growth management tools. The city, for example, possesses liberal planning, zoning, and building permit authority 3 miles beyond its limits, but state law stops that authority at county lines and naturally at state borders. Omaha's growth extends to county lines on the north and south, and the city borders Iowa on the Missouri River, essentially negating planning authority and growth management in three directions.

Omaha regulatory growth management instruments also include a tool not included in The GMI's four cornerstones: liberal annexation authority. Annexation can be an effective growth management tool, capturing the benefits of suburban growth rather than contributing to expensive urban sprawl (Rusk, 1995, p. 20). However, many states maintain complex annexation laws, and implementation rarely "falls entirely under local control" (Kelly, 1993, p. 76). Many states limited local annexation authority years ago. Although Nebraska and only two other states provide significant authority to cities to exercise "unilateral municipal annexation" (Kelly, 1993), county lines and state border locational factors, as noted above, restrict Omaha's ability to expand its corporate boundaries. In addition, annexation as a growth management tool contains fundamental limitations. Annexation actions occur *ex post facto*, after development has taken place in most cases. Nebraska's annexation laws permit Omaha to grow in terms of population; however, this compulsory local government tool generally reacts to urban development on its fringes, bringing developed areas into the city after development happens.

Nebraska provides Omaha with moderately strong regulatory tools to address urban sprawl, yet structural and legal characteristics limit their effective implementation. A senior planner with the City of Omaha stated to a group of public administration students visiting city hall on April 6, 2001, "Without changes in current state laws, the need for new growth management tools is certainly one of the critical issues we face in the years ahead." The planner described state restrictions on planning and zoning tools and the inability to use another tool (annexation) across county lines as significant obstacles to the City of Omaha in managing growth.

At the same time, Omaha has some fairly effective voluntary and market-based policy tools for addressing urban sprawl issues. For example, the city uses a couple of policy tools to manage infrastructure development outside its city limits and help direct urban growth. Like many central cities in metropolitan regions, Omaha provides many utility services beyond its borders. Independent water and electric power governmental authorities serve customers beyond Omaha's city limits. This strong tradition of public utilities in Nebraska enables the city to coordinate service arrangements in suburban areas with these other local government subdivisions. Although collaboration occurs at the management level, city planners indicate that governing boards of public utilities could take a more proactive role in developing policy for area growth.

Conversations with Omaha city planners indicate that their local government employs the extension of sanitary sewer services as a primary planning and policy tool to manage urban growth and development outside municipal boundaries. For instance, the city recently initiated discussions to extend sewer lines to communities several miles from its borders (Robb, 1999). Utility extensions can be characterized as a mixed policy instrument, using private market mechanisms in combination with direct government actions. The location of sanitary sewer

trunk lines and secondary lines, for instance, affects potential property values, influencing private-sector decisions regarding the placement of commercial and residential development outside city limits. Omaha has extended the “development boundary” for sewer extensions four times in the past 6 years (“City,” 2000), facilitating private-sector development.

The process used in Omaha to finance utility extensions, especially sewer trunk line extensions, illustrates the employment of market-force mechanisms in a policy tool. Initially, the city provides financing, and then developers must pay to hook up their subdivisions to the sewer extension if they lie within the development boundary. The developer hookup cost operates like a development impact fee as advocated by Fodor (1999), the aggressive growth management advocate. However, legal issues complicate the use of many development fees (Townsend, 1996), and the fees may in fact function as marketplace disincentives for large-scale development projects, adversely affecting affordability (Kolo & Dicker, 1993). Leapfrog and low-density development may instead take place because the development fee can be avoided by building large-lot subdivisions outside the fee’s reach. According to Omaha city planners, most development fees in fact encourage higher density development because the cost can be more economically spread out by developers among a larger number of property owners in a given geographic area.

Since 1947, a Nebraska state law has enabled Omaha to facilitate large-scale development outside its boundaries by the creation of temporary special districts initially orchestrated by private developers to finance infrastructure construction. Sanitary and improvement district (SID) laws represent a unique partnership between private business and local government. SIDs, at first consisting of only the private developer, issue tax-exempt bonds to pay for the cost of infrastructure development, and as property owners purchase parcels from the developer, they pay taxes to the SID to retire the bonds. Although inconsistencies occasionally mar the implementation of this development tool, the dozens of existing SIDs enable private investors to develop larger projects at the urban fringe and provide for orderly, economical urban development (University of Nebraska at Omaha, Center for Applied Urban Research, 1975). Because most developments fall within the city’s 3-mile zoning jurisdiction, these special districts, which generally consist of housing subdivisions, usually conform to city standards and planning goals. When the assessed valuation of a SID exceeds the remaining cost of the bonds, the city considers annexation. In 1999, Omaha annexed a number of SIDs containing almost 15,000 people.

Although the SID policy tool apparently provides market incentives for financing quality development at the urban edge, developers lack the same incentives or relatively simple tools for urban core improvements. The city, of course, can bond for improvements within the city limits by creating a number of special assessment districts, but the “politics” of redevelopment often limit their use. City residents vote on bond issues, and the city council creates the improvement district. In other words, the newer and developing parts of town receive the benefits of a moderately simple special district tool (the SID); the older and sometimes deteriorating sections must rely on more complex development tools and processes. In the mid-1990s, Nebraska approved an enterprise zone law to offer incentives to developers in economically distressed locations. Although development has occurred in many urban core areas, the level of improvement does not approach that in the fringe areas.

In the past 15 years, the city has also addressed the complexity of the urban growth management policy subsystem by instituting two community forums to deal with complicated growth and development issues. The Development Review Committee, consisting of members from all public entities in a specific development, resulted in greater understanding, creating “a cohesive approach to development among public officials,” according to one city planner (personal communication, May 23, 2001). And, a 50-member, community-wide task force that helped identify goals and objectives for the concept element of the city’s master plan keeps city planners on track with community values and visions.

In general, Omaha appears to be effectively managing urban growth with the tools it currently possesses. A recent study conducted by *USA Today* that used a “sprawl index” to measure changes in the population densities of metropolitan areas showed Omaha to be a leader in managing sprawl in its population class (El Nasser & Overberg, 2001).

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Conclusion: Implications for Planners and Managers

... this article shows that a variety of policy tools should be used for managing urban growth. A mix of regulatory tools and voluntary tools appears to contribute to the effectiveness of programs and efforts in this policy area.

... states need to also provide localities with policy tools to address issues of urban growth and sprawl outside the city boundaries.

... cities often have the power to plan for growth but lack the tools to manage growth.

Peters's ... framework for analysts linking policy tools, management processes and strategies, and policy problem moves this important theory of implementation forward.

The title of this article asks if the policy tools approach can improve the effectiveness of urban growth management. Effectiveness, generally referring to the outcomes or impact of an effort, is often difficult to measure. As a way to estimate and assess the effectiveness of growth management efforts, this article uses Peters's (2000) proposed analytical framework for policy analysts: "matching" the policy instrument, the policy problem, and the managerial technique (p. 37). After examining the policy tools approach and reviewing one city's efforts to manage urban growth, implications for public administration practice and theory can be noted.

Maybe most important is that the case study in this article shows that a variety of policy tools should be used for managing urban growth. A mix of regulatory tools and voluntary tools appears to contribute to the effectiveness of programs and efforts in this policy area. Most communities focus on standards and regulations or other types of policy instruments that employ compulsory mechanisms to control urban growth and sprawl. Planners and managers need to consider using tools that influence market forces and private developers' decisions. The case study showed and the tools approach confirmed (see Table 2) that mixed and voluntary instruments could be effective in complex policy subsystems such as local urban growth management.

It can also be inferred from this study that intergovernmental issues affect the structure of the urban development policy subsystem, affecting the range of policy tools available to planners and administrators. State governments grant authority to municipalities to manage and plan growth within or adjacent to city limits, providing tools such as zoning, subdivision regulations, and infrastructure extensions. However, states need to also provide localities with policy tools to address issues of urban growth and sprawl outside the city boundaries. Municipalities often possess planning tools, but generally, they are only effective within or near city boundaries. Of course, these tools need to be voluntary and mixed in nature as well as compulsory.

Also, this study shows that planning tools differ from management tools in terms of urban sprawl. Effective metropolitan growth management will occur only when states provide municipalities with the proper management tools. In other words, cities often have the power to plan for growth but lack the tools to manage growth. The Omaha case study shows that a mixture of compulsory, voluntary, and mixed policy instruments effectively managed sprawl.

Finally, policy tools theory appears to apply to practical and management issues of public administration, at least in terms of this case study research on urban growth management. Peters's (2000) framework for analysts linking policy tools, management processes and strategies, and policy problem moves this important theory of implementation forward. Hopefully, this article has improved Peters's three-way matching by refining the framing of the policy problem in terms of the complexity of policy subsystems. Of course, more applied research in policy tools theory is needed in other policy areas.

The Institute of Public Administration recently asked city planners to address public administration issues relating to urban sprawl management and Smart Growth (Mammen, 2000). Many of the planners discussed the need to improve implementation processes. Maybe urban planners and local government managers need to take a policy tools approach when searching for ways to improve the effectiveness of implementing policies in urban growth and sprawl management.

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